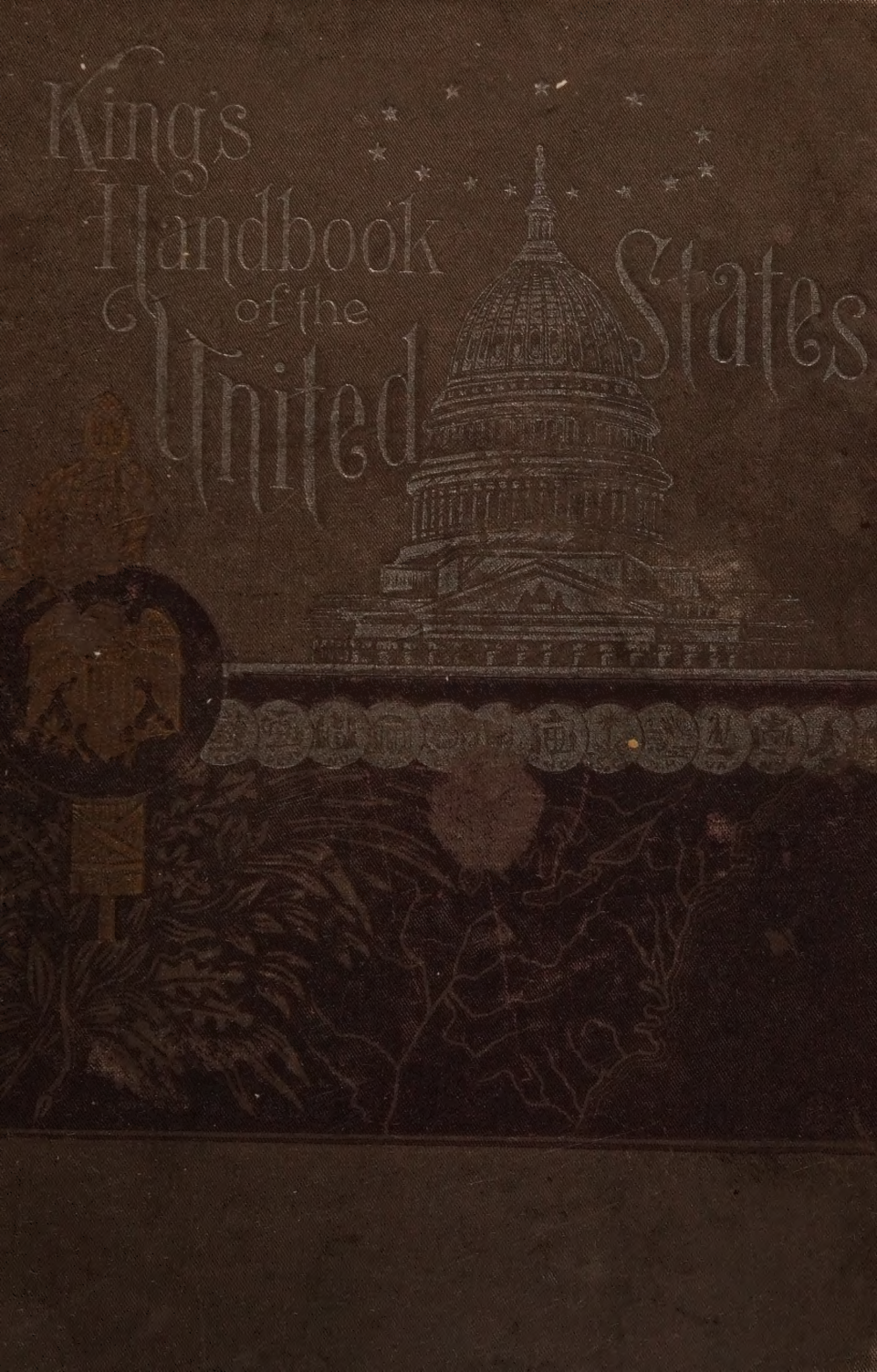
King's Handbook of the United States



"A good book is the life-blood of a master spirit" ~~~~~~~ Milton

Arthur L. Limbach

Sec._____ No._____

South

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THE ILLUSTRATED HEADING OF EACH STATE CHAPTER CONTAINS THE STATE ARMS AND MOTTO, THE STATE CAPITOL, THE PET NAME AND A PORTRAIT OF SOME PERSON PROMINENTLY CONNECTED WITH ITS HISTORY.

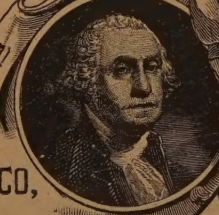
KING'S HANDBOOK OF THE UNITED STATES

PLANNED AND EDITED BY
MOSES KING

TEXT BY M. F. SWEETSER.

OVER TWENTY-SIX HUNDRED ILLUSTRATIONS

FIFTY-THREE COLORED MAPS.



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NATURAL PRODUCTS OF THE UNITED STATES.

PREFACE.

In this book of almost a thousand pages the space has proved to be so limited, compared with the subject to be treated, that every inch has had to be utilized, and from cover to cover there is not a blank line. Under such circumstances no room can well be spared for an extended introduction, and the propriety of devoting even a single page to explanation of the reason for the existence of the volume could well be doubted, if it were not that some few words of such explanation may put the plan of the work before the reader in such a manner as to increase the actual usefulness of the book to him. When we know for what purpose an edifice was planned we can more readily find our way to the special accommodations which at any time we need.

This Handbook of the United States was planned to condense into a single readable volume of moderate size that information about our own country which every intelligent and patriotic citizen ought to have at his command. The arrangement adopted was a treatment by States, preceded by a general article upon the whole country and the Federal relations and functions. Only those subjects were to be treated under the general head which were not divisible into their parts by States, and the details of the information in every instance possible were to be concentrated, each under its proper State article.

Every one of these monographs was to be written on the same general plan, and in such a manner as to afford a complete account of the State as it was recorded in the census of 1890, with such an account of its past as was necessary for the understanding of its present condition, moral, social, and economic, as well as physical and material. Each State was to be explained by a map, comprehensive enough to show every mile of railroad in operation and every considerable village. The general statistics of each State were to be grouped in a tablet on the first page so that they might be handy for instantaneous reference. The article was to begin with a succinct historical sketch followed by explanations and lists of the State Name, Seal and Governors; then were to follow accounts of the surface of the soil or its topography, the internal constituents of the land or the Geology, the usual conditions of the surrounding atmosphere or the Climate, the products of the land and the manner of its cultivation or Agriculture. Next in order were to be described the Government, the Militia, the treatment of the unfortunate and of the criminal, with an account of the public institutions devoted to their care, as well as of the general public works of the State. Education, the cornerstone of the institutions of a free people, was to have special attention, and a treatment so full as to be of permanent value as an incentive and an example. The material side, so important in a collection of commonwealths which have shown an industrial development unequaled in the world's history, was to have adequate though condensed notice under the heads of Commerce, Railroads, Finances, Manufactures, with Mining and similar specialties where needed. The Chief Cities, too, in every instance were to be described.

These monographs were all written and rewritten, and in every instance submitted, for criticism and revision, to the best authorities in each State. A few of the names of the many distinguished Americans who gave their aid in this manner are mentioned in the author's acknowledgment on page 26; but the obligations in this particular are so numerous that no list can be contained in moderate space — space and words both fail for the expression of what the publishers will always feel as a debt of gratitude owing from them to their kind friends.

The illustrations necessary to explain and make clear the text proved to be unexampled in number for any single volume. Had not the limits of space forbidden, the drawings alone actually used would easily have filled a volume larger than the one now containing them with the descriptive text and the atlas of the country. The necessary reduction has taken away from the apparent importance of each of the 2,600 pictures, but we hope that a careful examination will show that the artistic beauty and the intrinsic value have in all cases been retained.

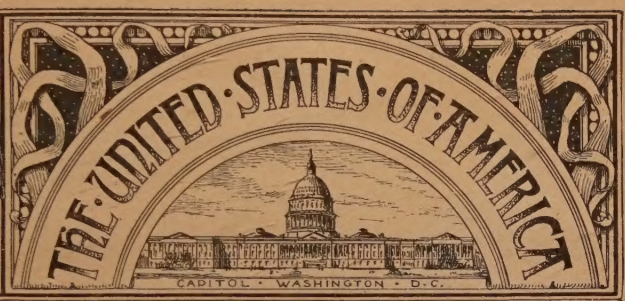
As the Handbook in its essentials is based upon the National Census of 1890, whose final results were announced only in 1893 and 1894, it has been thought best to leave the text with only minor alterations, and to embody the results of later and generally less authoritative compilations up to 1896 in the form of an appendix. The portion relating to any State can be read easily and quickly, and thus in an instant the necessary emendations be fixed in the mind of the reader, without the need of destroying the symmetry of the work as a record. In the case of the maps, all information available up to 1896 has been embodied in the plates so as to make of them a complete up-to-date atlas.

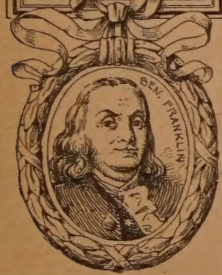
With these few explanations of the intent of its author and publishers, we leave the result of their labors for the consideration of the public.

THE MATTHEWS-NORTHRUP CO.

March 1, 1896.

THE MATTHEWS-NORTHRUP
HANDY MAP SHOWING
TERRITORIAL GROWTH
OF THE
UNITED STATES
1776-1896
DRAWN, ENGRAVED AND PRINTED
AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF MILES.
0 50 100 200 300 400 500
The 13 Original States.
NEW HAMPSHIRE
MASSACHUSETTS
RHODE ISLAND
CONNECTICUT
NEW YORK
NEW JERSEY
PENNSYLVANIA
DELAWARE
MARYLAND
VIRGINIA
NORTH CAROLINA
SOUTH CAROLINA
GEORGIA
NOTE:
The boundaries of the present States and Territories
may be easily traced by the dotted lines.
ALASKA purchased
from Russia, 1867,
7,200,000 Dollars
NORTHWEST TERRITORY
LOUISIANA
Settled by French, 1717; ceded to Spain, 1763; restored to France, 1800;
bought by United States, 1803, for 15 Million Dollars
Texas declared independent 1836
Annexed to United States 1845
Gadsden's purchase 1853
10 Million Dollars
Ceded to the United States after
the Mexican War 1848
Indemnity to Mexico 15 Million Dollars
OREGON
Later called
Claimed by Spain, England
and the United States.
Jointly occupied by Great Britain
and the United States 1818 to 1846.
Acquired by Exploration and Settlement.
49° Parallel agreed on as Boundary, 1846.
EAST FLORIDA
ceded to United States for
5 Million Dollars
GULF OF MEXICO
PACIFIC OCEAN
ATLANTIC OCEAN
BRITISH AMERICA
NEW BRITAIN
SPANISH DOMINION
NEW MEXICO
OLD MEXICO





HISTORY.

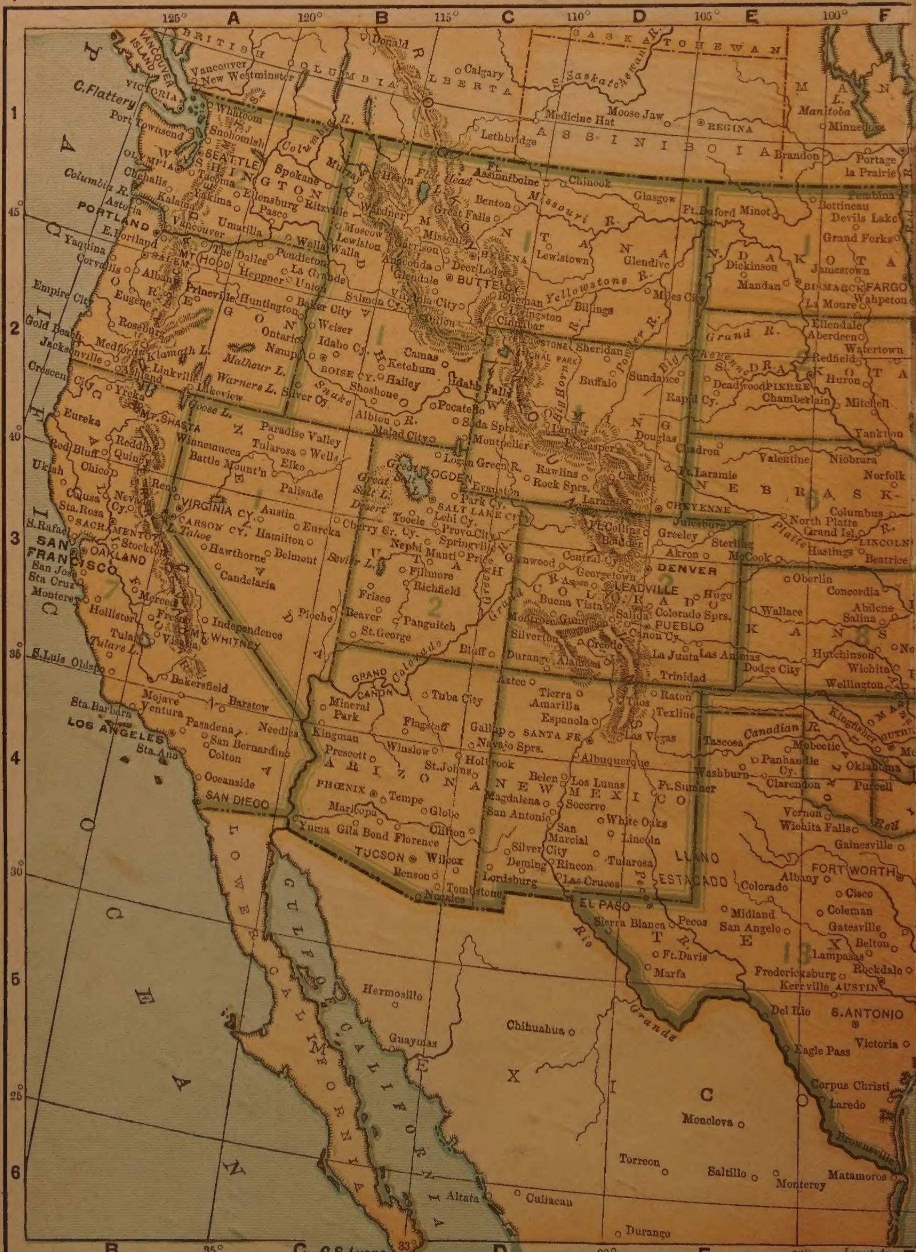
The secret of America was guarded well from the men of the Old World. Phœnician galleys are reported to have reached its shores before Christ was born in Galilee; and in later centuries the troubadours sang of Prince Madoc's westward voyages, and the pilgrimage of St. Brandan, and the mighty deeds of the Norsemen on the Vinland coast. Even these vague stories had been forgotten, and the Europeans looked with awe westward over the unknown Sea of Darkness, stretching away to the nether side of the globe. Then Columbus came forth, from his hut on the Genoese coast, and led a little fleet of Spanish vessels to the outpost islands of America, in 1492. He was followed, five years later, by John Cabot, a Venetian mariner, who, with his little English ship and English crew, first reached the continent of North America. Americus Vespucius discovered South America; Balboa crossed the Isthmus of Panama; and Sir Humphrey Gilbert and other English sailors visited the northern coast. For a century America was believed to be a part of Asia, the land of gold and spices, and men voyaged hither hoping to find the riches of the Orient. When the truth became known, the Europeans set about colonizing the new-found continent, some moved by ambition, some by avarice, and some by a desire for freedom in religious and secular life. The Spaniards and Portuguese laid hold on South and Central America and the West Indies, and Spain founded the earliest permanent settlements within the limits of the present United States, at St. Augustine, in 1565, and at Santa Fé, in 1598. France occupied the Canadian wilderness and the Mississippi Valley; and Holland and Sweden planted colonies in the Hudson and Delaware regions, and elsewhere. England's men, sent by Sir Walter Ralegh, attempted to settle in Carolina, in 1585; Gosnold established a transitory colony in Massachusetts, in 1602; and the Virginia Company founded Jamestown, in

STATISTICS.

Population in 1790,	3,929,214
In 1800,	5,308,483
In 1810,	7,239,881
In 1820,	9,633,822
In 1830,	12,866,020
In 1840,	17,069,453
In 1850,	23,191,876
In 1860,	31,443,321
In 1870,	38,558,371
In 1880,	50,155,783
In 1890,	62,622,250
Indians (Census of 1890),	249,273
Total vote cast at last Presidential election,	11,386,632
Area (square miles),	3,527,009
Army (in 1890),	27,390
Disciplined Militia,	109,535
Navy (in 1890) Sailors,	8,000
Ships in commission,	38
U. S. Marine Corps,	2,077
Post-offices,	64,965
Railroads (miles),	202,786
Net National Debt (April 30, '91),	$848,515,593
Newspapers and Periodicals,	19,373
Mean Annual Temperature (excluding Alaska),	53°

CITIES OF OVER 100,000 INHABITANTS (CENSUS OF 1890).

New York, N. Y.,	1,515,301
Chicago, Ill.,	1,099,850
Philadelphia, Pa.,	1,046,964
Brooklyn, N. Y.,	806,343
St. Louis, Mo.,	451,770
Boston, Mass.,	448,477
Baltimore, Md.,	434,439
San Francisco, Cal.,	298,997
Cincinnati, Ohio,	296,908
Cleveland, Ohio,	261,353
Buffalo, N. Y.,	255,664
New Orleans, La.,	242,039
Pittsburgh, Pa.,	238,617
Washington, D. C.,	230,392
Detroit, Mich.,	205,876
Milwaukee, Wis.,	204,468
Newark, N. J.,	181,830
Minneapolis, Minn.,	164,738
Jersey City, N. J.,	163,003
Louisville, Ky.,	161,129
Omaha, Neb.,	140,452
Rochester, N. Y.,	133,896
St. Paul, Minn.,	133,156
Kansas City, Mo.,	132,716
Providence, R. I.,	132,146
Denver, Colo.,	106,713
Indianapolis, Ind.,	105,436
Allegheny, Pa.,	105,287



The Heavy Boundary lines represent the unofficial but popular division of the Country into:

East, Old West, South, South West, New West, Mountain and Pacific Slope States.

The Bluish figures (7) show the Number of Congressmen in each State.

1606. In 1620 the exiled English Pilgrims founded Plymouth, in Massachusetts; and ten years later the Puritans settled Boston. For a century and a half, the British colonists advanced slowly inland, pressing back the Indians, Frenchmen, Spaniards and all others by force of arms. When Great Britain imposed heavy taxes on her American subjects, in 1765, to help pay the costs of the French war, they rose in arms against the principle of taxation without representation. Then followed the Revolutionary War, from 1775 to 1783, when the United Colonies, aided by French fleets and armies, won their independence. The troops in the field numbered 131,000 Continental regulars and 164,000 volunteers. The States formed a loose confederation of republics from 1781 until 1787, when that wonderful document, the Constitution of the United States, was framed by Washington, Franklin, Hamilton, Madison, Livingston, Jay, Sherman and other fathers of the Republic. This system of government was accepted by each of the States; and in 1789, Washington became the first President.

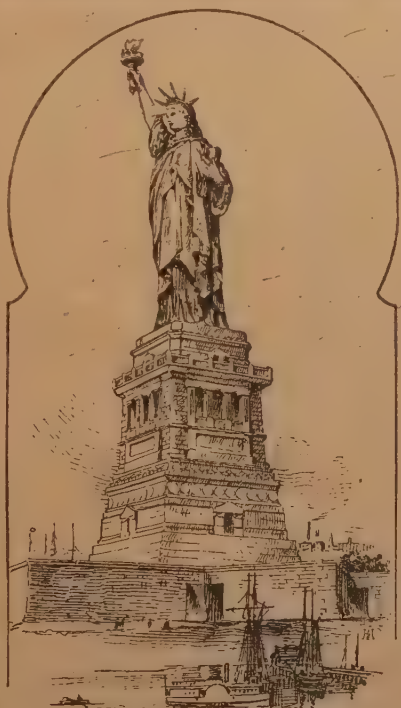
The original Republic, lying between the seaboard and the Alleghany Mountains, was greatly enlarged by the conquests of George Rogers Clark's Virginians, in 1778, covering the country between the Ohio, the Great Lakes, and the Mississippi River. In 1803 President Jefferson paid Napoleon Bonaparte $15,000,000 for the region west of the Mississippi, as far as Texas and the Rocky Mountains; and sent Lewis and Clarke to explore and preempt the Oregon Country. Barbary corsairs had for many years captured American vessels and held their crews as slaves. In 1801–5 the navy conquered Tripoli, and in 1815 Commodore Decatur defeated the Algerian fleet, and both these piratical powers were forced to yield their claims of tribute from the United States. During the long Napoleonic wars France endeavored to check American commerce with British ports, and England in like manner impeded our trade with French countries. President Jefferson retaliated by the Embargo, forbidding vessels to leave our ports. For 14 months American shipping remained sealed up in its harbors, to the immense loss of New England and New York. Great Britain also claimed the right to stop and search our vessels on the high seas, and impress from them seamen for the crews of the Royal Navy. After 900 ships had been thus searched, and 5,000 mariners taken out, the United States declared war on Great Britain. During the three years' struggle that ensued, our navy covered itself with glory, and the British Government finally made peace, abandoning its claim of impressing sailors. In 1819, Spain ceded Florida to the Republic, and with it her claims on the Pacific Coast. Wave after wave of migration passed westward, down the Ohio and along the Great Lakes, building up vigorous commonwealths in the interior of the continent. The war with Mexico resulted in the acquisition of Texas, New Mexico, Nevada, Utah, Arizona and California; and at about the same time the United States extended her sway over the Oregon Country.

DUXBURY, MASSACHUSETTS: MILES-STANDISH MONUMENT.

In 1860–1 eleven of the 15 Southern States, believing in the sovereignty of each State, and believing, also, that certain of their peculiar institutions were endangered by Northern aggression, endeavored to secede from the Union, and formed the new government of the Confederate States of America. The National Government put 2,780,000 soldiers under arms. Of this vast armament, New England furnished 363,000 men; the Middle States, 864,000; the border Southern States, 323,000; and the six older Western States, 1,022,000. After four years of desperate fighting, from Arizona to the Atlantic, the authority of the United States was fully restored throughout all the Southern country. But this supreme effort cost the lives of 500,000 men (350,000 Federal; 150,000 Confederate), and increased the National debt to $2,800,000,000, besides nearly ruining the South, whose cities and

rural regions had been laid desolate. In due time, the governments of the Southern States were restored to their people, and the Stars and Stripes once more floated, an honored emblem, over a great, prosperous and united Republic. *Sit Perpetua.*

The Name of the Great Republic is stated by the Constitution as THE UNITED STATES OF AMERICA. The league against British oppression was naturally called the United Colonies, until Congress resolved (Journal II., 328) "that in all Continental commissions and other instruments, where heretofore the words 'United Colonies' have been used, the style be altered for the future to be the 'United States.'" The name America comes from *amalric*, or *emmerich*, an Old-German word spread through Europe by the Goths, and softened in Latin to Americus, and in Italian to Amerigo. It was first applied to Brazil. Americus Vespucius, the son of a wealthy Florentine notary, made several voyages to the New World, a few years later than Columbus, and gave spirited accounts of his discoveries. About the year 1507, Hylacomylus, of the college at St. Dié, in the Vosges Mountains, brought out a book, *Cosmographiæ Introductio*, in which he said: "Now, truly, as these regions are more widely explored, and another fourth part is discovered, by Americus Vespucius, I see no reason why it should not be justly called *Amerigen*, — that is the land of Americus, or America, from Americus, its discoverer, a man of a subtle intellect." Hylacomylus invented the name America, and as there was no other title for the New World, this came gradually into general use. It does not appear that Vespucius was a party to this almost accidental transaction, which has made him a monument of a hemisphere.



NEW-YORK HARBOR: STATUE OF LIBERTY ENLIGHTENING THE WORLD (BY BARTHOLDI).

The pet name for the American Government is UNCLE SAM. It arose during the War of 1812, when Samuel Wilson was an inspector of provisions destined for the American army, at Troy. The abbreviation "U. S.," marked on the casks, was then unfamiliar to the people, and one of the waggish men spread the facetious saying that it meant "Uncle Sam" Wilson. The good inspector was often rallied on the rapid increase of his possessions; and when many of his men entered the army the old joke about Uncle Sam was carried from camp-fire to camp-fire, and permeated all the armies in the field. Wilson died at Troy, in 1854. Uncle Sam is usually portrayed as a tall, thin man, of a Yankee type, with a long chin beard. He is clad in a blue swallow-tail coat, bearing white stars; his outgrown trowsers are of red and white stripes; and his head is covered with a white bell-crowned tall hat. Another pet name is BROTHER JONATHAN, from Governor Jonathan Trumbull, of Connecticut. Gen. Washington, when in doubt or perplexity used to say: "Let us consult Brother Jonathan," and the name got to be synonymous with sensible and patriotic American manhood. New-Englanders (and often all Americans) are called YANKEES, perhaps because the Indians used to say *Yengees* for "English."

The Great Seal of the United States, adopted in 1782, shows a shield of 13 perpendicular red and white stripes (the States), upholding a blue field (Congress). The shield is borne on the breast of a displayed eagle, whose right talon holds an olive branch, and his left talon holds a bundle of 13 arrows. In his beak he carries a scroll, inscribed with the motto: E PLURIBUS UNUM ("One out of many," one government formed from numerous States). A similar phrase occurs in the Latin poets, Horace and Virgil, and had been printed for many years prior to the Revolution on the title-page of *The Gentleman's Magazine*, of London, then largely circulated in the American colonies. The Great Seal has as a crest a golden glory, breaking through a cloud, and enclosing a blue field, with a constellation of 13 white stars. The American Eagle, or Bald Eagle (*Haliaëtus leucocephalus*), is a dark brown or blackish bird, three feet long, with pure white head and tail. This noble "Bird of Freedom" for over a century has been the National emblem.

The American Ensign, as arranged by the Navy Department, contains an upper row of eight stars and a lower row of eight, with four rows, each of seven stars, between them. The colors are red, signifying Divine love, valor and war; white, whose language is hope and truth, purity and peace; and blue, the color of loyalty, sincerity and justice. The 13 stripes (six the full length of the flag, and seven from the blue union) typify the original 13 States; the 44 stars represent the 44 States in 1891, grouped in the constellation of the Union, "The radiant heraldry of Heaven."

The flag raised over the American camps at Cambridge in 1776 was composed of the 13 stripes, with the British union. In 1777 the stars and stripes came into being.

The American Jack is the union of the flag. The Revenue Flag shows 16 perpendicular red and white stripes, and a white union bearing 13 blue stars. Many of the States have flags of their own, which are carried alongside the National standard, by their militia or volunteer troops.

PLYMOUTH, MASSACHUSETTS: NATIONAL FOREFATHERS' MONUMENT.

"As at the early dawn the stars shine forth even while it grows light, and then, as the sun advances, that light breaks into banks and streaming lines of color, the glowing red and intense white striving together and ribbing the horizon with bars effulgent. So on the American flag, stars and beams of many-colored light shine out together. And where this flag comes, and men behold it, they see in its sacred emblazonry no ramping lions and no fierce eagle, no embattled castles or insignia of imperial authority; they see the symbols of light. It is the banner of dawn. It means LIBERTY; and the down-trodden creature of foreign despotism sees in the American flag that very promise and prediction of God: 'The people which sat in darkness saw a great light.' * * * Our flag carries American ideas, American history, and American feelings. Beginning with the Colonies, in its sacred heraldry, in its glorious insignia, it has gathered and stored chiefly this supreme idea: Divine right of liberty in man. Every color means liberty; not lawlessness, not license; but organized institutional liberty,—liberty through law, and laws for liberty!"—HENRY WARD BEECHER.

The Presidents of the United States have been: George Washington, 1789–97; John Adams, 1797–1801; Thomas Jefferson, 1801–9; James Madison, 1809–17; James Monroe, 1817–25; John Quincy Adams, 1825–9; Andrew Jackson, 1829–37; Martin Van Buren, 1837–41; William Henry Harrison, 1841; John Tyler, 1841–5; James Knox Polk, 1845–9; Zachary Taylor, 1849–50; Millard Fillmore, 1850–3; Franklin Pierce, 1853–7; James Buchanan, 1857–61; Abraham Lincoln, 1861–5; Andrew Johnson, 1865–9; Ulysses Simpson Grant, 1869–77; Rutherford Birchard Hayes, 1877–81; James Abram Garfield, 1881; Chester Alan Arthur, 1881–5; Grover Cleveland, 1885–9; and Benjamin Harrison, 1889–93.

Distribution of Population. – The territory of the United States is so vast that its people, numerous as they are, would give but a sparse population if spread over it in anything like an equal ratio. Sixty-three million people dispersed over three million square miles would be widely scattered and difficult to reach. The fact is that the great American people have as yet settled their territory in a small part only. And that, though one half of the area may be said to be somewhat settled, by far the greater part of the United States is still just beginning to be utilized.

The total figures are so well known that the natural impulse to strike an average leads almost every one into error. Few realize that the United States is made up of a comparatively small portion well settled, and then a much larger portion sparsely settled, and that the vast majority of the area, by comparison, can hardly be called settled at all.

The map showing distribution of population gives us the following round figures: 16,000,000 living on 110,000 square miles, average 145; 12,000,000 living on 180,000 square miles, average 66; 26,000,000 living on 900,000 square miles, average 29; 4,000,000 living on 300,000 square miles, average 13; 4,000,000 living on 600,000 square miles, average 7; 750,000 living on 925,000 square miles, average 0.8. These figures show that one fourth the population lives in one twenty-fifth of the area, one half the population in one tenth of the area, eleven twelfths in one half of the area.

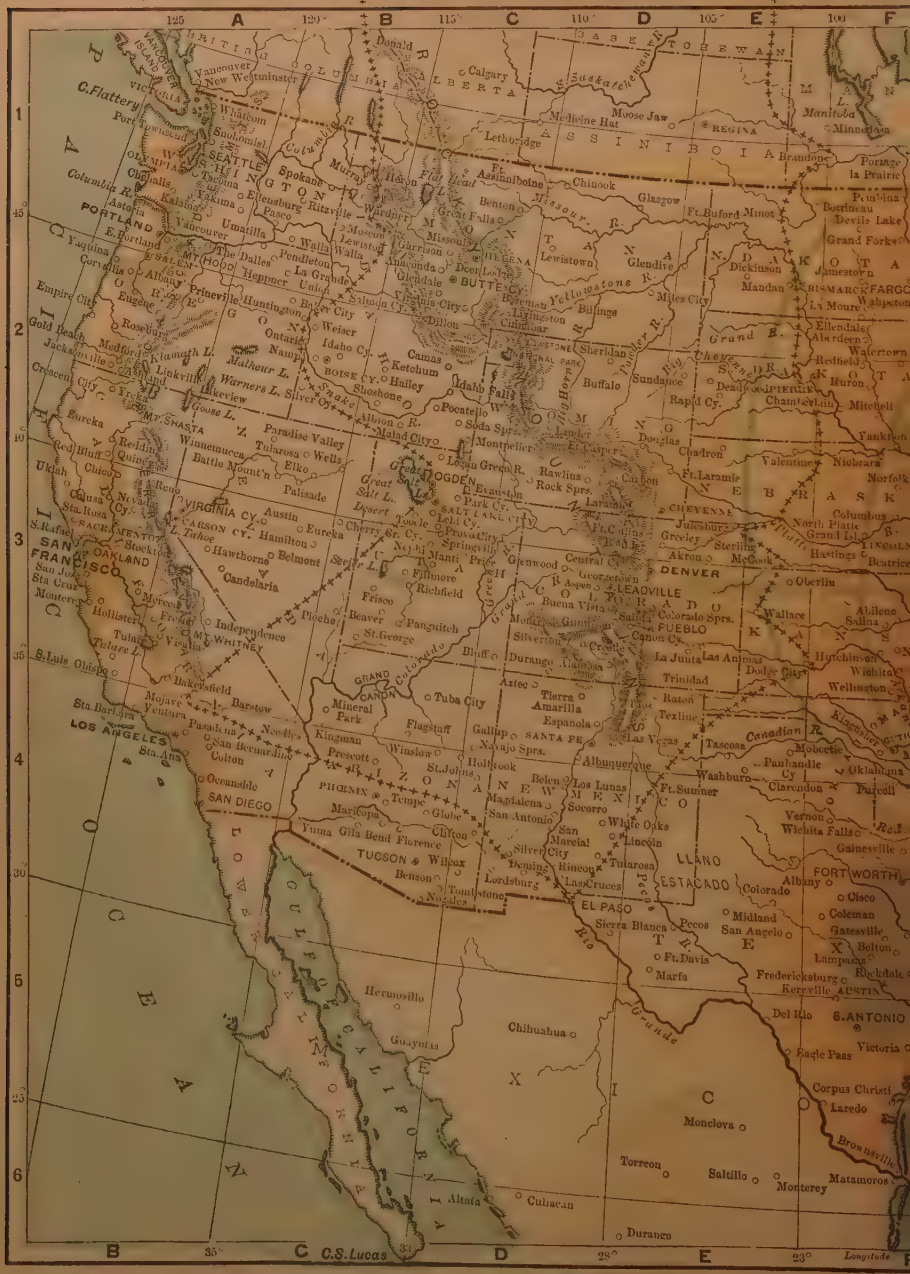
A quarter of the population live in one twenty-fifth of the area; and yet they are less closely crowded than the people of any prominent European country except Spain or Russia. If the whole United States were as thickly settled as this part of it, its population would be over four hundred millions. If the whole country were settled as closely as the part east of the Mississippi and north of the Ohio River, where now almost one half of the people live in one tenth of the area, the total population would be over three hundred millions, and then the population would be less than half as dense as that of Germany.

Centers of Population.— The unequal distribution of the population of the United States, and its remarkable number of great cities, occasion striking peculiarities in the location of centers of population.

That *Cincinnati* is entitled to the designation of the central city, can be seen by reference to the circle drawn on the map at a distance of 750 miles from it. This circle includes every important city in the country, except Portland, Me., Galveston, Tex., Denver, Colo., Salt Lake City, Utah, and San Francisco and the other cities on the Pacific Slope. New Orleans, Boston and Duluth are about the extreme limits of this circle. The most distant of them can be reached within 36 hours on an express train, and almost any other city within 24 hours. A similar circle from *Chicago* reaches almost the same territory, except in the extreme east and south, as will be readily seen. Perhaps the greater facilities of railroad communication make Chicago practically, though not geographically, equally central with Cincinnati.

Another circle drawn from *Buffalo* with a radius of 450 miles, the distance to Chicago or Boston, shows that, with one possible exception, more large cities and a greater amount of thickly populated territory can be reached in a single night's journey from Buffalo than from any other large city in the United States. Certainly, one half the population of the United States is within 500 miles of Buffalo. The only other large city for which almost the same claim can be made is *Pittsburg*. Though not so easy of access from Boston and New England points, in other respects it has the same advantages as Buffalo.

The most surprising concentration of urban and densely settled population is shown by the circle of 200 miles drawn from *New York City*. Within that circle can be found, in an easy half-day's journey, over one fifth of the population of the United States, and almost one half of the number of those who live in cities of over 8,000 inhabitants. The entire territory outside of the 750-mile circle from Cincinnati does not contain one half so many inhabitants as are confined in this small circle, which in area is less than a thirtieth of the United States.



DISTRIBUTION OF POPULATION

Pop.16 Millions 110,000 Sq.Miles AVERAGE 145 — OVER 100 TO THE SQ.MILE

Pop.12 Millions 180,000 Sq.Miles AVERAGE 66 — 50 TO 100 TO THE SQ.MILE

THE MATTHEWS-NORTHRUP
HANDY MAP
OF THE
UNITED STATES,
SHOWING
DISTRIBUTION OF POPULATION
and Standard Time Divisions.
MADE AT THEIR
COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES.
0 50 100 200 300 400
320 MILES TO THE INCH
Longitude West from Greenwich
G H J K L M
Albany R.
Rat Portage
Lake of the Woods
Port Arthur
Red L.
Tower
L. Nepigon
SUPERIOR
Houghton
Marquette
Sault Ste Marie
Algoma
North Bay
Ottawa R.
OTTAWA
MONTREAL
Three Rivers
QUEBEC
L. St. John
R. St. Lawrence
NEW BRUNSWICK
St. John R.
MT. KATAHDIN
Sherbrooke
Bangor
AUGUSTA
MT. DESERT
PORTLAND
Portsmouth
Lewiston
Burlington
Ogdensburg
Kingston
Rutland
CONCORD
Lowell
Lynn
BOSTON
C. Cod
Troy
Worcester
Saratoga
Utica
Syracuse
Oswego
ROCHESTER
BUFFALO
Elmira
Binghamton
ALBANY
Scranton
Jersey City
Newark
NEW YORK
BROOKLYN
Long Branch
PHILADELPHIA
Camden
Atlantic Cy.
Haven
NEWPORT
Williamsport
Oil City
PITTSBURG
HARRISBURG
TRENTON
Reading
WILMINGTON
BALTIMORE
WASHINGTON
Cumberland
Parkersburg
Wheeling
Zanesville
COLUMBUS
Dayton
CINCINNATI
Newport
Portsmouth
FRANKFORT
Lexington
Richmond
LOUISVILLE
Owensboro
Mammoth Cave
Paducah
Cairo
Cape Girardeau
Springfield
Poplar Bluff
Eureka Sprs.
Fayetteville
Van Buren
Newport
Jackson
MEMPHIS
NASHVILLE
Columbia
CHATTANOOGA
Knoxville
Morristown
Bristol
Greensboro
Salisbury
RALEIGH
Charlotte
New Berne
Fayetteville
Beaufort
Danville
Weldon
Petersburg
NORFOLK
Old Pt. Comfort
RICHMOND
Lynchburg
Roanoke
Staunton
Greenville
Spartanburg
Florence
WILMINGTON
C. Fear
Georgetown
CHARLESTON
Athens
COLUMBIA
Aiken
AUGUSTA
Beaufort
Macon
Americus
Albany
SAVANNAH
Brunswick
Fernandina
Thomasville
JACKSONVILLE
St. Augustine
Palatka
Sanford
Gainesville
Ocala
Cedar Keys
Orlando
Kissimmee
Bartow
Tampa
Tampa B.
Punta Gorda
L. Okeechobee
THE EVERGLADES
BAHAMA ISLANDS
NASSAU
C. Sable
KEY WEST
Straits of Florida
HAVANA
CUBA
ATLANTIC OCEAN
GULF OF MEXICO
Mouths of the Mississippi R.
Apalachicola
TALLAHASSEE
PENSACOLA
DeFuniak Sprs.
MOBILE
Biloxi
NEW ORLEANS
Morgan Cy.
GALVESTON
HOUSTON
New Iberia
L. Charles
BATON ROUGE
Beaumont
Alexandria
Natchez
VICKSBURG
Meridian
JACKSON
Greenville
Grenada
Holly Sprs.
Water Valley
Helena
Pine Bluff
Camden
Texarkana
Jefferson
Monroe
Shreveport
Marshall
Palestine
Paris
Greenville
Hot Springs
LITTLE ROCK
Ft. Smith
Van Buren
Fayetteville
Eureka Sprs.
Joplin
Springfield
Cape Girardeau
Cairo
Paducah
Owensboro
EVANSVILLE
Belleville
Vincennes
Alton
Hannibal
Moberly
Chillicothe
Quincy
Jacksonville
Terre Haute
Decatur
Lawrence
Sedalia
Nevada
Burlington
Keokuk
Bloomington
Peoria
Galesburg
Ottumwa
Council Bluffs
Rock Island
Davenport
Ottawa
Streator
Logansport
Danville
Ft. Wayne
Lima
Findlay
Sandusky
Akron
Canton
Youngstown
Allegheny Cy.
Lansing
Grand Rapids
Muskegon
Kalamazoo
Jackson
Ludington
Saginaw
Bay City
Pt. Huron
Owen Sound
Hamilton
London
Niagara Fls.
TORONTO
Alpena
Traverse Cy.
Manistee
Mackinaw Cy.
Sault Ste Marie
Marquette
Ashland
Escanaba
Wausau
Marinette
Chippewa Falls
Eau Claire
Green Bay
La Crosse
Fond du Lac
Oshkosh
Sheboygan
MILWAUKEE
Racine
Janesville
Rockford
Elgin
Aurora
Joliet
Dubuque
Ft. Dodge
Mason City
Austin
Winona
Mankato
Faribault
Red Wing
Stillwater
ST. PAUL
Brainerd
Superior
DULUTH
Tower
Red L.
Rat Portage
Lake of the Woods
Port Arthur
Albany R.
L. Nepigon
SUPERIOR
Houghton
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Sault Ste Marie
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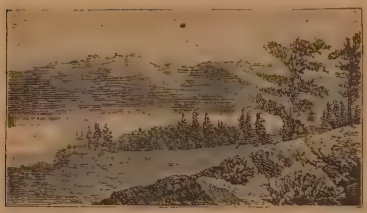
Owen Sound
TORONTO
Hamilton
London
Niagara Fls.
Kingston
Ogdensburg
Burlington
Lewiston
PORTLAND
Portsmouth
Lowell
Lynn
BOSTON
C. Cod
Troy
Worcester
Saratoga
Utica
Syracuse
Oswego
ROCHESTER
BUFFALO
Elmira
Binghamton
ALBANY
Scranton
Jersey City
Newark
NEW YORK
BROOKLYN
Long Branch
PHILADELPHIA
Camden
Atlantic Cy.
Williamsport
Oil City
PITTSBURG
HARRISBURG
TRENTON
Reading
WILMINGTON
BALTIMORE
WASHINGTON
Cumberland
Parkersburg
Wheeling
Zanesville
COLUMBUS
Dayton
CINCINNATI
Newport
Portsmouth
FRANKFORT
Lexington
Richmond
LOUISVILLE
Owensboro
Mammoth Cave
Paducah
Cairo
Springfield
Hannibal
Moberly
Chillicothe
Quincy
Jacksonville
Terre Haute
Richmond
Hamilton
Covington
Springfield
Ft. Wayne
Lima
Sandusky
Akron
Canton
Youngstown
Allegheny Cy.
Lansing
Grand Rapids
Muskegon
Kalamazoo
Jackson
Ludington
Saginaw
Bay City
Pt. Huron
Manistee
Green Bay
Oshkosh
Sheboygan
MILWAUKEE
Racine
Janesville
Rockford
Elgin
Aurora
Davenport
Ottawa
Streator
Galesburg
Peoria
Bloomington
Decatur
Danville
Lawrence
Sedalia
Nevada
Joplin
Eureka Sprs.
Fayetteville
Van Buren
Ft. Smith
Hot Springs
Pine Bluff
Camden
Texarkana
Jefferson
Monroe
Shreveport
Marshall
Palestine
Alexandria
Beaumont
L. Charles
Morgan Cy.
GALVESTON
Helena
Holly Sprs.
Water Valley
Grenada
Greenville
Meridian
Jackson
Natchez
Mississippi R.
Columbus
Calera
Selma
Opelika
Aberdeen
Gadsden
Decatur
Huntsville
Rome
ATLANTA
Anniston
BIRMINGHAM
Columbus
Americus
Albany
Brunswick
Thomasville
MONTGOMERY
Eufaula
Evergreen
Apalachicola
TALLAHASSEE
Cedar Keys
Ocala
Gainesville
St. Augustine
Palatka
Sanford
Orlando
Kissimmee
Bartow
Tampa
Tampa B.
Punta Gorda
L. Okeechobee
THE EVERGLADES
Pop. 26 Millions 900,000 Sq. Miles AVERAGE 29
20 TO 50 TO THE SQ. MILE
Pop. 4 Millions 300,000 Sq. Miles AVERAGE 13
10 TO 20 TO THE SQ. MILE
Pop. 4 Millions 600,000 Sq. Miles AVERAGE 7
1 TO 10 TO THE SQ. MILE
Pop. ¾ Million 925,000 Sq. Miles AVERAGE 0.8
LESS THAN 1 TO THE SQ. MILE



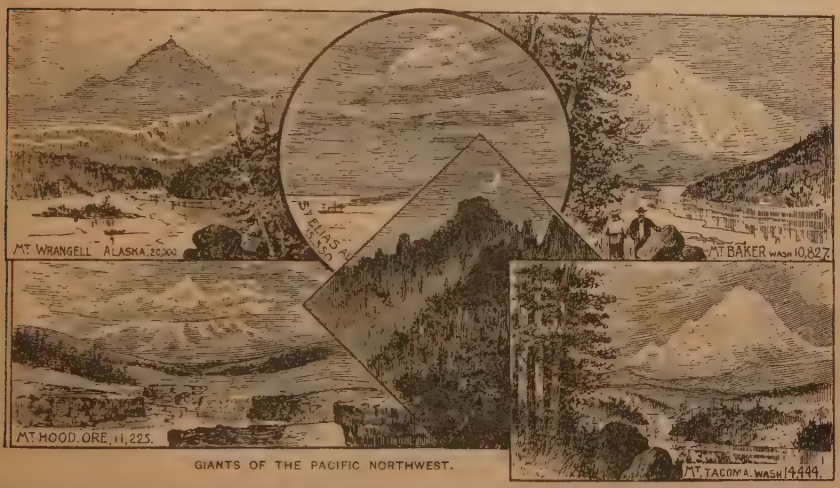
WASHINGTON:
OLYMPIC MOUNTAINS AND STRAIT OF JUAN DE FUCA.

Descriptive.— The United States (excluding Alaska) occupies a position as to latitude, longitude and area which would correspond to that part of the Old World lying between Cairo and Prague, and between the west of Ireland and the eastern coast of the Black Sea. It faces the Atlantic Ocean with the deep fiords and rocky promontories of New England; the low sandy strands of New Jersey and Virginia, cut deep into by Delaware and Chesapeake Bays; and the long southern beaches, behind which open still and shallow lagoons. Nearly parallel with the coast, and from 20 to 100 miles inland, the Appalachian Mountains run from Alabama northeastward for 1,300 miles, to Gaspé, on the Gulf of St. Lawrence, including the Blue Ridge and Alleghany Mountains of Pennsylvania and the South, the Adirondacks and Catskills and Highlands of New York, and the Taconic, White and Green Mountains of New England. This highland country has a breadth of about 100 miles, and a height of from 2,000 to 3,000 feet, culminating in North Carolina and New Hampshire in peaks above 6,000 feet high. The only practicable break in the range is where the Hudson and Mohawk Rivers have cut their way through, and afford an avenue for a vast movement of freight by water. Beyond the Appalachian Range opens the Central Valley, 1,250 miles square, and covering 1,500,000 square miles, drained by the Mississippi River and the Great Lakes. So slight an elevation intervenes between the Mississippi and the lakes, that a cutting of 100 feet deep would open a practical ship-canal between the two systems of waters, whose outlets are so widely separated. The Great Plains sweep up to the Rocky Mountains, which are 300 miles wide, and extend from Mexico to Canada, with many majestic ranges and peaks, and beautiful park-like valleys. Next westward comes the Great Basin of Utah and Nevada, an elevated plateau covering 250,000 square miles, with vast treeless mountains, tracts of desert, and rivers evaporating on their arid plains. To the north lies the Columbian Plateau, largely of barren volcanic soil; and to the south stretches the Colorado Plateau, with its stupendous cañons. Westward rise the majestic Sierra Nevada and the Cascade Range, running from Mexico into British Columbia. Beyond the broad valleys of California and Oregon the Coast Range fronts the Pacific Ocean, broken at wide intervals by harbors. The Geographer of the United States divides the Republic into the Atlantic States, including the North Atlantic and South Atlantic groups; the Central States, including the North Central and South Central Groups; and the Western, or Cordilleran States, including Montana, Wyoming, Colorado and New Mexico, and all lying to the westward of these.

Gannett's Bulletin on the *Distribution of Population in Accordance with Topographic Features* (May, 1891), sub-divides the Republic into 21 differing areas, as follows: *The Wooded Coast Swamps* and rice-lands along the South Atlantic and the Gulf have 1,809,000 inhabitants (mainly negroes). *The Atlantic Plain*, between the swamps and the fall line, from New York to the Mississippi, low and level, and with much forest-growth, has 8,784,000 people. *The Piedmont Region*, between the fall line and the mountains, extends from Maine to Alabama, hilly in New England, level in the South, and abounding in woodlands, with 7,858,000 people. The broken and forest-clad *New-England Hills* (including also the Adirondacks) have 2,290,000. *The Appalachian-Mountain System*, from New Jersey to Alabama, includes the Blue Ridge and

UTAH: GREAT SALT LAKE.

its western valley, with 2,849,000 people. *The Cumberland-Alleghany Plateau*, an intricate and deep-forested mountain-land, extending from New York to Alabama, has 5,749,000 inhabitants. *The Interior Timbered Region* covers southern Ohio and Indiana, western Kentucky and Tennessee, and northern Mississippi, with 11,292,000 inhabitants. *The Lake Region*, including parts of New York, Pennsylvania and Ohio, and most of Michigan, Wisconsin and Illinois, has 3,578,000 people. *The Ozark-Mountain Region*, in Arkansas and Missouri, has 1,041,000 inhabitants. *The Alluvial Region of the Mississippi*, from Cairo to Louisiana, is marshy and forested, with a richly fertile soil, and a perilous climate. Most of its



GIANTS OF THE PACIFIC NORTHWEST.

885,000 inhabitants are negroes. *The Prairie Region*, the granary of America, covers western Indiana, most of Illinois and Iowa, southern Wisconsin and Minnesota, northern Missouri, eastern Dakota, and Kansas and Nebraska, and pushes down into Texas. It is a level country, originally rich in grasses, but devoid of timber. Here dwell 13,048,000 people. *The Great Plains*, treeless, billowy, too scant in rain for farming without irrigation, extend from the prairies (the 99th meridian) to the Rocky Mountains, and have 737,000 inhabitants. *The North Rocky Mountains*, from Canada southeast to central Wyoming, have 153,000. *The South Rocky Mountains*, from central Wyoming to Texas, have 247,000. These two sections of the continental range are separated by a broad plateau of 100 miles in Wyoming. *The Plateau Region* of the Colorado Valley, above the Rio Virgen, is a series of gigantic level steps, descending from 12,000 feet high to 2,000 feet, fronted by cliffs, and often cut into skeletons by profound cañons. This sterile land, with its light and spasmodic rains, and its appalling phenomena of scenery, is the most thinly settled part of the Republic, having less than one inhabitant to the square mile (110,000). *The Basin Region* of Nevada and parts of Utah, California and Oregon, without outlet to the sea, and poor in rain, has 403,000. *The Columbian Mesas* cover the basaltic plains of the Snake and Upper Columbia, in Idaho, Oregon and Washington, and have 219,000 people. *The Sierra Nevada* has 146,000; *The Pacific Valley*, from Puget Sound to Tulare Lake, 435,000; *The Cascade Range*, deep forested around its extinct volcanoes, 179,000; and *The Coast Ranges*, 810,000. The country between the Prairie Region and the Pacific Valley will never be thickly settled, on account of its lack of water, which seriously impedes farming pursuits. The Pacific States can happily accommodate and sustain many times their present population; and a large immigration has lately poured into Southern California and the Puget-Sound country.

The Climate is colder than that of similar European latitudes, New York being 11°7′ colder than Naples, and Norfolk 4°3′ colder than San Fernando, Spain. The North-Atlantic and North-Pacific States have nearly the same temperatures, but the Southern States are warmer than the same latitudes along the Pacific, owing to the Gulf of Mexico. The prevailing winds are westerly. The largest rainfall is along the Atlantic and the Gulf. California is nearly rainless throughout the summer. The coldest locality (outside of Alaska) is along the Rocky Mountains, in Montana; the hottest region is in the Colorado and Gila Valleys. The mean temperature of New York corresponds with that of Paris, but its winters are Icelandic, and its summers Italian. Rains are equally distributed east of the hundredth meridian, coming largely from evaporation in the tropics, blown northward from the Gulf of Mexico, following the Appalachian Mountains, or spreading fan-like up the Mississippi Valley. The Eastern Gulf coast gets the heaviest rains, averaging above 60 inches of moisture a year, while Savannah, Charleston and Norfolk have less than 50 inches, and Philadelphia, New York and Boston have 43 inches each. Vast areas of New Mexico and Arizona, Utah and Wyoming, Montana and Oregon receive less than ten inches of moisture yearly.

Agriculture is favored by the great diversity of soils and climates. The Federal statistics (see page 939) show that the farm-products exceed $3,800,000,000 a year. There are 4,000,000 farms, covering 536,000,000 acres, and valued, with their live-stock and implements, at $12,000,000,000. Three fourths are cultivated by their owners. Not quite half of the wage-earners are engaged in farming. The yearly cost of fence-building is $80,000,000; and of fertilizers, $30,000,000.

THRESHING BY STEAM IN A PRAIRIE WHEAT FIELD.

The grass crop is the greatest of American products, for besides the vast amounts consumed in grazing, the hay cut on farms reaches a value of $400,000,000 a year. The live-stock numbers 165,000,000 head, valued at $2,400,000,000. They include nearly 50,000,000 each of sheep and hogs, 37,000,000 oxen and cattle, 16,000,000 milch cows, and 16,000,000 horses and mules. The yearly dairy-products reach 600,000,000 gallons of milk, 800,000,000 pounds of butter, and 30,000,000 pounds of cheese. The poultry product exceeds $75,000,000 yearly, with 125,000,000 fowls, giving yearly 6,000,000,000 eggs. The crops of the United States in 1891 amounted to 44,444,000 tons of hay, 8,700,000 bales of cotton, 2,075,000,000 bushels of corn, 588,000,000 of wheat, 758,000,000 of oats, 34,000,000 of rye, 80,000,000 of barley, 14,500,000 of buckwheat, and 225,000,000 of potatoes; and 520,000,000 pounds of tobacco.

Minerals are produced to the amount of over $650,000,000 a year (see page 939), nearly one third of which is of coal, largely from Pennsylvania. The same State also produces 21,000,000 barrels of the petroleum; and Ohio gives 12,000,000 barrels, the whole product being 45,000,000 barrels. Natural gas most abounds in Pennsylvania, Ohio and Indiana. The American product of iron and steel is now the largest in the world, and exceeds $150,000,000 yearly. The Cordilleran region gives yearly about 55,000,000 ounces of silver, of a coin value of $70,000,000; and 1,600,000 ounces of gold, worth $33,000,000. Nearly half of the $34,000,000 worth of copper produced yearly comes from Montana, with large quantities from Michigan and Arizona. The marble of Vermont, Tennessee, and Georgia, the granite of New England and other sections, the sandstone of Ohio and Connecticut, and other stones show a value of $54,000,000 a year; and the lime is worth $28,000,000. Double this amount is paid for brick and tile.

1. WASHINGTON; 2. J. ADAMS; 3. JEFFERSON; 4. MADISON; 5. MONROE; 6. J. Q. ADAMS; 7. JACKSON; 8. VAN BUREN; 9. W. H. HARRISON; 10. TYLER; 11. POLK; 12. TAYLOR; 13. FILLMORE; 14. PIERCE; 15. BUCHANAN; 16. LINCOLN; 17. JOHNSON; 18. GRANT; 19. HAYES; 20. GARFIELD; 21. ARTHUR; 22. CLEVELAND; 23. B. HARRISON.

The Government of the United States is in effect a republic of republics. It is more than a league of States, because it exercises direct authority over every citizen. Yet the States existed before the Republic came into being, and hold an undelegated authority over their people. They are subordinate to the Federal Government, yet they could survive without it, as independent republics. Bryce likens the United States to a group of ancient chapels, over which the vast cathedral of the Union has been built. Their identity remains; and if the greater structure decayed, they might still exist, as separate and independent edifices. The Federal Government administrates upon war and peace and foreign relations, the army and navy, the postal service, foreign and domestic commerce, Federal courts of justice, currency, copyrights and patents, taxation for general purposes, and the protection of citizens against unjust State legislation. All other and local administrations inhere in the several States, where the local needs are best known. The President and Congress are subject to the Constitution, and the only sovereign power is the will of the people, acting under the Constitution, and with the capacity of amending that document. The President and Vice-President are chosen by electors (numbering 442 in 1893), the people of each State choosing by vote as many as the State has members of both houses of Congress. The electors meet in their several States, and vote for the candidate whom they have been elected to choose. So that the electoral vote of each State is solid for one candidate, and the popular vote for the minority candidate in that Commonwealth is lost. Thus it may happen (and has happened at least twice) that the Presidential candidate in whose name the largest number of votes has been cast by the people, is not elected. If no one gets a majority of the total number of electoral votes, the House of Representatives must choose the President, from the three candidates receiving the highest number of electoral votes. In this case (which has happened twice) the Representatives vote by States, each State delegation being a unit. Thus the 23 smaller States could elect a President against the 21 larger States. There is an unwritten law, that will probably never be disregarded, that no chief magistrate shall have a third term. The President is commander-in-chief of the army and navy, but never officially enters the field of war. He appoints the chief executive officers of the Government.

The Cabinet includes the Secretaries of State, the Treasury, War, the Navy, the Interior, and Agriculture, the Postmaster-General and the Attorney-General. The Secretaries of State, the Treasury, and War, and the Attorney-General composed Washington's cabinet.

The Congress of the United States is composed of the Senate and the House of Representatives. The Senate includes 88 senators, two being elected by the legislature of each State, for a term of six years. It is the connecting link between the State and Federal Governments, being chosen by the States (not by the people) to form part of the National Government. The House of Representatives includes 356 members, elected every two years by a vote of the people. The relative importance of the State governments has decreased within a half-century, while the Nation has grown majestically superior.

The Federal judicial tribunals include the Supreme Court, of nine justices, sitting at Washington; the nine Circuit Courts; the 55 District Courts; and the Court of Claims (with five justices). They deal with cases in law and equity arising under the Federal Constitution, laws or treaties; cases affecting ambassadors and consuls; cases of maritime jurisdiction; controversies to which the United States is a party; and controversies between States, or citizens of different States, or a State and citizens of another State, or between States (or their citizens) and foreign states or subjects.

The domain of the United States now includes 44 States, four Territories (New Mexico, Arizona, Utah and Oklahoma), the District of Columbia, Alaska, and the Indian Territory.

The 13 original States were NEW HAMPSHIRE, MASSACHUSETTS, RHODE ISLAND, CONNECTICUT, NEW YORK, NEW JERSEY, PENNSYLVANIA, MARYLAND, DELAWARE, VIRGINIA, NORTH CAROLINA, SOUTH CAROLINA, and GEORGIA. Maine was taken from Massachusetts; Vermont, from New Hampshire and New York; and West Virginia, from Virginia. The remaining 28 States have risen from later-won domains of the Republic.

The United-States Army consists of 27,390 men, in ten regiments of cavalry, five of artillery, and 25 of infantry. There are 2,225 negro soldiers, forming the Ninth and Tenth Cavalry and the 24th and 25th Infantry regiments; and 1,485 Indian soldiers, to be enrolled into regiments. There are 104 garrisoned posts (not including arsenals), and 45 ungarrisoned forts. The organized militia numbers 112,000 men, and the unorganized militia includes 8,600,000 men available for military duty. The Soldiers' Home is near Washington.

The United-States Military Academy at West Point (New York) has graduated 3,500 officers for the army. Post-graduate schools for officers are in operation at Fort Monroe, Virginia (for artillery), and at Fort Leavenworth, Kansas (for cavalry and infantry). Up to the year 1861, West Point had graduated 1,966 officers, of whom 1,249 were then living. Three fourths of these fought in the armies of the Union, including 162 from the Southern States (nearly half of the Southern graduates). During the war, one half of the West-Point graduates were wounded, and one fifth were killed in battle (see page 599).

The United-States Navy includes 8,000 men, and 72 vessels of the old fleet (of which only 30 are in commission), and 44 vessels of the new navy, twenty of them still under construction. These include battle-ships, harbor-defence rams, torpedo-boats, and armored and unarmored cruisers, most of them of steel, and with heavy modern armaments. The Marine Corps numbers 2,100 men. There are ten navy-yards, and four naval stations. The United-States Naval Academy, at Annapolis (Maryland), fits picked young men, by a six years' course of study, to be officers in the Line and Engineer Corps of the Navy, and in the Marine Corps (see page 332).

NEW-YORK CITY: GRANT MONUMENT, BEING ERECTED IN RIVERSIDE PARK.

The favorite National song with the army is *The Star-Spangled Banner*, written in 1814, by Francis Scott Key, of Georgetown, D. C., at that time a prisoner on the British fleet which was unsuccessfully attacking Fort McHenry, near Baltimore. The popular National song, *America*, was written at Andover, Mass., in 1832, by Samuel Francis Smith, a native of Boston, a classmate of Oliver Wendell Holmes at Harvard, and now for many years past a resident of Newton, Mass., being by profession a clergyman. The *John Brown* song, so famous in the Union armies, originated at Fort Warren, in Boston Harbor, in 1861, among the Massachusetts volunteers. The one great poem of the war period was *The Battle Hymn of the Republic*, written to the *John Brown* tune, by Julia Ward Howe, of Massachusetts. Of the older patriotic songs, *Columbia, the Gem of the Ocean*, and *Hail Columbia* both emanated from Philadelphia, the one in 1843, and the other in 1798.

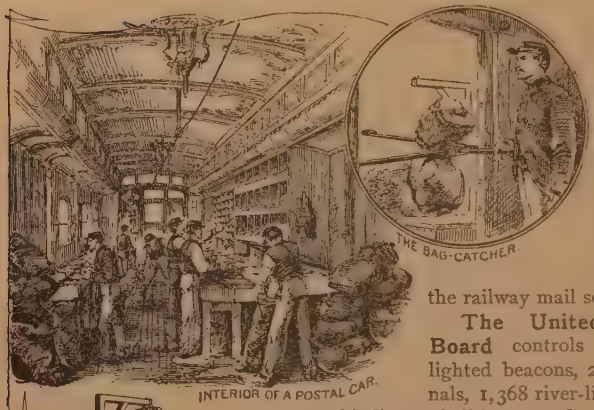
Pensions are paid to 680,000 persons, including 71,000 in New England, 138,000 in the Middle States, 87,000 in the South, and 384,000 in the West. The amount exceeds $120,000,000 a year. The list contains a score of widows of Revolutionary soldiers.

The United-States Revenue-Cutter Service has 16 armed cruisers on the Atlantic and the Gulf, four on the Pacific, and four on the Great Lakes, besides the harbor-steamers, and the school-ship at New Bedford. It costs $1,000,000 a year; and enforces the customs and neutrality laws, assists vessels in distress, and discharges many other duties.

The Exports amount to $1,050,000,000 a year, three fourths of which is in agricultural products. Nearly two thirds goes to Great Britain and her colonies. The imports reach $900,000,000 yearly, one third of which comes from Great Britain and her colonies. Before the civil war, two thirds of the imports and exports were carried in American vessels; now, less than one eighth is thus carried. Commerce employs 4,700,000 tons of American shipping, valued at $180,000,000. Three fourths of this is in the coastwise trade. The tonnage exceeds that of every other nation except one.

UNITED-STATES MILITARY ACADEMY, WEST POINT, NEW YORK.

MILITARY SERVICE OF THE UNITED STATES.



INTERIOR OF A POSTAL CAR.

RAILWAY MAIL SERVICE.

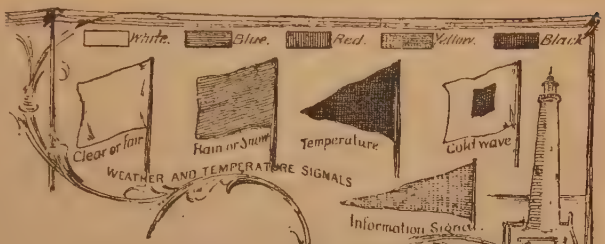
The Post-Office Department costs $72,000,000 a year, and has a revenue of $66,000,000. Transporting mails costs $37,000,000, and postmasters' salaries, $15,000,000. This department has introduced many remarkable improvements, including the interesting system of the railway mail service, and sea post-offices.

The United-States Light-House Board controls 1,167 light houses and lighted beacons, 28 light-ships, 280 fog-signals, 1,368 river-lights, 390 day beacons, 138 whistling or bell buoys and 4,200 buoys. There are 34 small vessels and 3,200 men employed.

Finances.—The Government has received since its foundation (excluding loans) about $12,000,000,000. Of this amount, nearly $7,000,000,000 were from customs, and $4,000,000,000 from internal revenue. The expenditures have been $12,500,000,000; for war, $4,700,000,000; the navy, $1,200,000,000; pensions, $1,400,000,000; interest, $2,700,000,000; and for other purposes, $2,500,000,000. The several States and Territories owe $223,000,000, net; the counties, $142,000,000, net; and the 779 chief municipalities, $470,000,000, net. The debts are less than in 1880. The money now in circulation amounts to $1,500,000,000, one fourth in gold coin, nearly as much in United-States notes, one eighth each in National-bank notes and gold certificates, and one fourth in silver certificates and silver. The United-States Mint is at Philadelphia. The amount of clearances in the New-York Clearing-House reaches nearly $34,000,000,000 a year, which exceeds the clearances of any other city in the world. There are 3,577 National banks, with a capital of $660,000,000, and a surplus of $223,000,000. The 921 savings-banks have $1,525,000,000 in deposits, and a surplus of $150,000,000.

The Life-Saving Service has 178 stations on the Atlantic coast, 48 on the Great Lakes, and 11 on the Pacific coast. It costs $1,000,000 a year, and in 1891 saved $7,000,000 in property, and succored 551 shipwrecked persons (only 42 having been lost).

UNITED-STATES LIFE-SAVING SERVICE.



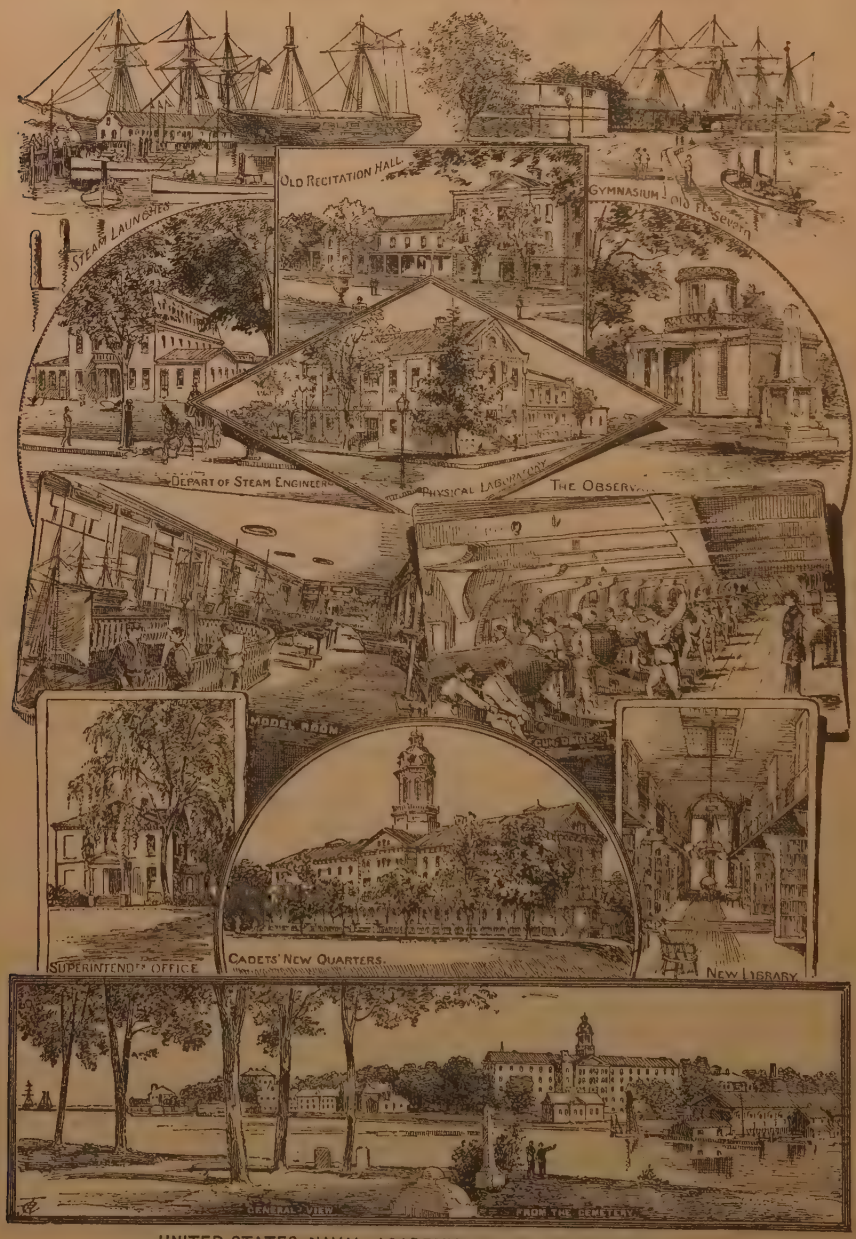
The Signal Service of the army was in 1870 partly formed into a meteorological bureau, to study the scientific law of storms, and predict the advance of storm-fields. It has 300 men in service, all over the Union, with headquarters at Washington. The accuracy of weather predictions increases yearly; and the department is of great benefit to commerce and agriculture alike.

Education in the public schools costs $140,000,000 a year (three fourths for salaries), the number of enrolled students exceeding 12,000,000, with an average daily attendance of 8,000,000. There are over 400 accredited universities and colleges, with 8,000 instructors and 46,000 students, property valued at $147,000,000, and libraries containing 4,200,000 volumes. The first American college was Harvard, founded in 1638, and still the most famous in the Republic. The College of William and Mary arose in Virginia in 1693; Yale College, in Connecticut, in 1700; and the College of New Jersey, in 1746.

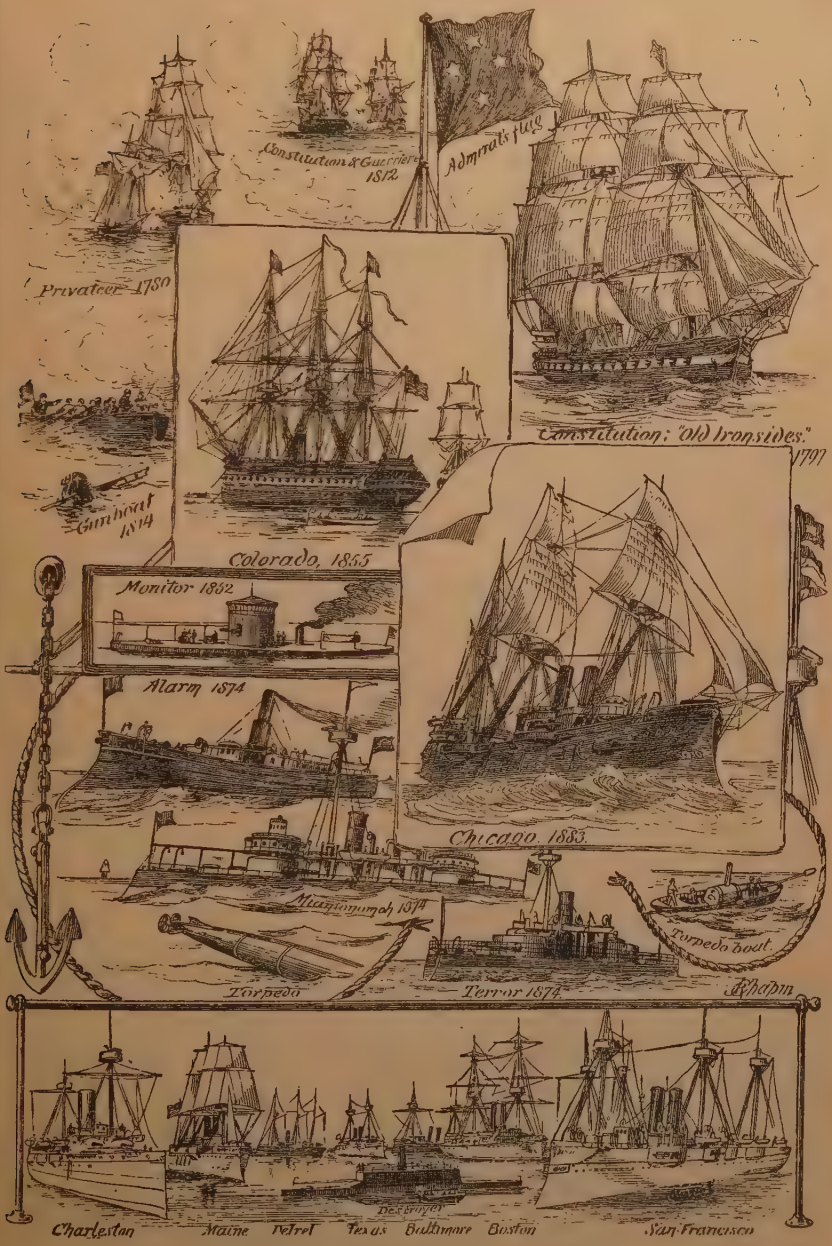
Newspapers number 19,400; 1,300 in New England, 3,700 in the Middle States, 10,100 in the West, 3,300 in the South, and 1,000 on the Pacific Coast. Their total yearly issues exceed 4,000,000,000. More than 4,000 books are published each year.

Religion numbers in the United States 150,000 churches, 100,000 clergymen, and 22,000,000 communicants. The chief denominations are the Methodists, with 5,000,000 communicants; the Baptists, 4,300,000; the Presbyterians, 1,200,000; the Lutherans, 1,000,000; and the Congregationalists and Episcopalians, about 500,000 each. The Catholic population exceeds 8,000,000; and there are 250,000 Jews. The Sunday schools number 120,000, with 1,200,000 teachers and 9,000,000 pupils. The 1,300 Young Men's Christian Associations have 200,000 members, 1,100 general secretaries, $10,000,000 in property, and yearly outlays of nearly $2,000,000. There are 225 Young Women's Christian Associations, 6,000 societies of the Epworth League, 150,000 King's Daughters, and 10,000 Young People's Societies of Christian Endeavor, with 600,000 members. The Freemasons have 650,000 American members; the Odd Fellows, 650,000; the Knights of Pythias, 264,000; and the Royal Arcanum, 120,000. There are 400,000 comrades of the Grand Army of the Republic.

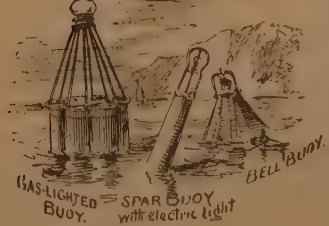
WASHINGTON: CHIEF SIGNAL OFFICE, AND FLAGS.



UNITED-STATES NAVAL ACADEMY, ANNAPOLIS, MARYLAND.



NAVAL SERVICE OF THE UNITED STATES.



AMERICAN LIGHT-HOUSE SERVICE.

Immigrants to the number of 16,000,000 have come to the United States. The European immigrants landing at United-States ports during the last ten years numbered 5,246,613, besides probably 1,500,000 entering by way of Canada. They have been made up of one third Germans, one fourth Britons and Irish, one tenth each of Scandinavians and Canadians, and from four to six per cent. each of Austro-Hungarians, Russians and Italians. Minnesota and Dakota have foreign-born populations equal to one half the natives. Massachusetts, Rhode Island, Connecticut, New York, Michigan, Wisconsin and Nebraska have foreign-born people equal to more than one fourth of the natives. The South has attracted but little immigration, Virginia, the Carolinas, Georgia, Alabama, and Mississippi having less than one per cent. of foreign-born inhabitants. Texas has eight per cent. The immigration of Chinamen, other than officials, students, merchants and tourists, is stringently forbidden by Congress. An act of Congress approved in 1882 forbids the landing on American shores of foreign-born convicts, lunatics, idiots, or persons liable to become a public charge; and thousands of immigrants have been sent back to Europe under this law. An act passed in 1885 forbids the landing of aliens under contract to labor here.

The Public Lands of the United States included all the vast areas outside the thirteen original States (except Kentucky, Tennessee and Texas). The original area of the Union, and the Northwestern Territory, included about 850,000 square miles, to which 1,850,000 were added by the Louisiana Purchase and the Mexican cessions, 60,000 by the purchase of Florida from Spain, 50,000 by the Gadsden Purchase from Mexico, and 266,000 by the annexation of Texas. Alaska was bought from Russia in 1867, for $7,200,000, but it may not be considered as a field for colonization. Exclusive of Alaska, the public lands amounted to 2,837,000 square miles. Over a billion acres, including nearly all that is of value, has been sold for cash, or granted for schools, military bounties, swamp-land and railroad grants, and homesteads. Most of the available land has passed into the hands of individuals and corporations.

NEW YORK: THE CUSTOM HOUSE.

The Centre of Population in the United States in 1790 was 23 miles east of Baltimore; in 1800, 18 miles west of Baltimore; in 1810, 40 miles northwest by west of Washington; in 1820, 16 miles north of Woodstock (Va.); in 1830, 19 miles southwest of Moorefield

(W. Va.); in 1840, 16 miles south of Clarksburg (W. Va.); in 1850, 23 miles southeast of Parkersburg (W. Va.); in 1860, 20 miles south of Chillicothe (Ohio); in 1870, 48 miles east by north of Cincinnati; in 1880, eight miles west by south of Cincinnati; and in 1890, 20 miles east of Columbus, Indiana, near the village of Westport. The centre of population of the United States has thus traveled westward from the Eastern Shore of Maryland, where it stood in Washington's administration, to Decatur County, in southern Indiana. During all this century of "Westward the Star of Empire takes its Way," the centres of population have kept within 25 miles of the 39th parallel of latitude, moving toward the Pacific Coast 505 miles, almost on a direct line. The annexation of Florida and the migration into the Southwest pulled the centre below 39° in 1830; and in 1890 it moved well north of the parallel, by reason of the development of the Northwest and the State of Washington, and the increase of population in New England.

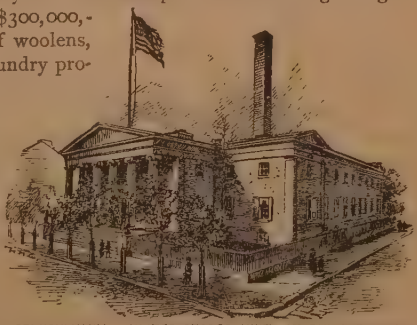
NEW-YORK HARBOR: ELLIS ISLAND AND THE NEW IMMIGRATION BUILDING.

NEW YORK: THE UNITED-STATES BARGE-OFFICE.

The Railroads of the United States have cost $9,000,000,000, and employ 1,000,000 persons. There are over 200,000 miles of track, with 30,000 locomotives, 27,000 passenger-cars, and over 1,100,000 other cars. Their capital stock is $4,640,000,000, with funded debts of $4,800,000,000, yearly traffic earnings of $1,000,000,000 (two thirds from freight), net earnings of $318,000,000, and dividends of $84,000,000 yearly. The American telegraph lines extend for 250,000 miles, with 800,000 miles of wire, 26,000 offices, and 42,000 employees, mostly pertaining to the Western Union system.

Manufactories in 1860 numbered 140,000, using $1,000,000,000 in materials, with a yearly product of $1,900,000,000. In 1880, they numbered 254,000, using $3,400,000,000 in materials, and producing $5,370,000,000 yearly. The annual product of flouring and grist mills was $500,000,000; of slaughter-houses, $300,000,000; of iron and steel works, $300,000,000; of woolens, $270,000,000; of lumber, $230,000,000; of foundry products, cotton goods, men's clothing, and boots and shoes, about $200,000,000 each. Two thirds of the manufactures are in New England and New York, New Jersey and Pennsylvania.

The Cities are growing much faster than the country. In 1790 there were only six cities with more than 8,000 inhabitants. By 1840, these had increased to 44; in 1880, to 286; and in 1890, to 443. In 1790 there was no city with as many as 100,000 inhabitants; but in 1890 there were 28.



PENNSYLVANIA: UNITED-STATES MINT, AT PHILADELPHIA.

The progress of the United States has been rich in benefits to the world, and has been marked by the development of many illustrious men. In invention, she has produced Morse and Fulton, Edison and Whitney; in science, Silliman and Dana; in military science, Grant and Sherman and Sheridan; in statesmanship, Washington and Jefferson, Franklin and Lincoln; and in oratory, Webster and Clay. To the romancers of the world she has given Hawthorne and Cooper and Howells; to the poets, Longfellow and Whittier, Holmes and Bryant; to the historians, the Bancrofts and Parkman, Prescott and Motley; to the essayists, Lowell and Emerson; and to the masters of literary style, Washington Irving. The Union of States still nobly advances, marvellous in her potentialities, and at peace with all the world. And within her own borders, the sometime forgetful States have nobly returned to the doctrine of their old-time Revolutionary hero, Patrick Henry, who said: "The distinctions between Virginians, Pennsylvanians, Yorkers, and New-Englanders, are no more. I am not a Virginian, but an American." And now, more than ever, there is full truth in Jefferson's words: "The cement of the Union is in the heart-blood of every American." In its perilous phases sectionalism has passed away, and remains now mainly as a proper local and homestead pride. Gen. Sherman wrote: "Every American should be proud of his whole country, rather than of a part. Therefore, I hope and pray that the new men of the South will cultivate a pride in the whole United States of America, instead of the mere State of birth. How much more sublime the thought that you live at the root of a tree whose branches reach the beautiful fields of western New York and the majestic cañons of the Yellowstone, and that with every draught of water you take the outflow of the pure lakes of Minnesota and drippings of the dews of the Alleghany and Rocky Mountains." Millions of Americans are growing into this broader Nationalism, the spirit of Philip Nolan, as he said to the young naval ensign: "Remember, boy, that behind all these men you have to do with, behind officers and Government and people, even, there is the Country Herself, your Country, and that you belong to Her as you belong to your own mother."

ACKNOWLEDGMENT.—In his effort to make this Handbook of the United States a portrayal of the chief traits of the Great Republic, historic, scenic, economic, and industrial, the author has been put under many obligations. It was not enough that the description of each State should be illustrated by scores of pictures and explained by a new map engraved for the purpose. Multitudes of facts, accounts, descriptions and statistics had to be collected from all sources. In the two years devoted to this search the author has received the kindest assistance from the public officials, both State and National. They have not only furnished hundreds of volumes of the latest official reports, but have in many instances written out special monographs to be used in the Handbook. Citizens prominent in public life and in literature, without even the slight claim upon their attention that an official position might give, have revised the manuscript and enriched it by their suggestions. To statesmen like Sherman of Ohio, Dolph of Oregon, Stewart of Nevada, Hampton of South Carolina, Bayard of Delaware, Miller of Iowa, Ingalls of Kansas, Prince of New Mexico, Fitzhugh Lee of Virginia, —and to men of letters, like Angell of Michigan, Cable of Louisiana, Petroff of Alaska, Mitchell of Connecticut, Thwaites of Wisconsin, Goodell of Massachusetts, and Bancroft of California, no thanks adequate to the services they have rendered can be given. While to the author and the publisher belongs the responsibility for the short-comings of the book, a great part of its merits is due to the generous assistance of these and many other distinguished Americans.

HISTORY.

At the dawn of her history, Alabama contained four tribes of aborigines, the civilized and hospital Cherokees, in the northeast, in a region that they always called Chiaha; the warlike and heroic Chickasaws, in the northwest, along the Tennessee, the Tombigbee and the Upper Yazoo; the friendly Choctaws, in the west and southwest; and the Muscogees (or Creeks), called by Bancroft "the most powerful nation north of the Gulf of Mexico," west of the Ocmulgee.

The first historical mention of Alabama deals with the marches of Hernando De Soto, the Spanish cavalier, with 620 knights and priests, crossbowmen and arquebusiers of Spain, who landed at Tampa Bay, crossed Georgia, and entered Alabama in July, 1540 (80 years before the Pilgrims arrived at Plymouth). The army visited Coosa, Tallasee, and other Indian towns, in search of a land of gold; and then marched by Piachee to Maubila (whence comes the name of Mobile). Here they were fiercely attacked, and during a long day's battle in and around the burning town, the Spaniards defeated the natives, losing 168 men, and slaying 2,500. Thence the European army moved through the lonely land of Pafallaya, and up the Tombigbee Valley into Mississippi, fighting many a bloody battle, and enduring and causing frightful sufferings. One hundred and sixty-two years later, the Sieur de Bienville, "the Father of Alabama," transferred his French colony from Biloxi to Dog River, on Mobile Bay, and erected Fort St. Louis de la Mobile. In 1711, he moved to the present site of Mobile. A few years later, English traders from Georgia built a stockade at Ocfuskee; and Gen. Oglethorpe made a treaty with the Muscogees, at Coweta. After the cession of the trans-Alleghany country to Great Britain, at the peace of 1763, the part of Alabama south of Selma and Montgomery was included in the district of West Florida, and the unsettled country to the

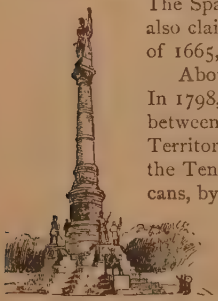
STATISTICS.

Settled at	Mobile Bay.
Settled in	1702
Founded by	Frenchmen.
Admitted to the U. S.,	1819
Population in 1860,	964,201
In 1870,	996,992
In 1880,	1,262,505
In 1890 (U. S. Census),	1,513,017
White,	830,796
Colored,	681,431
Voting Population,	259,884
Vote for Harrison (1888),	57,197
Vote for Cleveland (1888),	117,320
Net Public Debt,	$11,992,619
Area (square miles),	52,250
U. S. Representatives (1893),	9
Militia (Disciplined),	2,954
Counties,	67
Post-offices,	2,028
Railroads (miles),	3,422
Manufactures (yearly in 1880),	$13,566,000
Operatives,	10,019
Yearly Wages,	$2,500,000
Farm Land (in acres),	18,855,000
Farm-Land Values,	$79,000,000
Farm Products (yearly)	$57,000,000
School Children, enrolled,	259,432
Newspapers,	180
Latitude,	30°13′ to 35° N.
Longitude,	7°51′ to 10°38′ W.
Temperature,	5° to 107°
Mean Temperature (Mobile),	66°

TEN CHIEF CITIES AND THEIR POPULATIONS. (Census of 1890.)

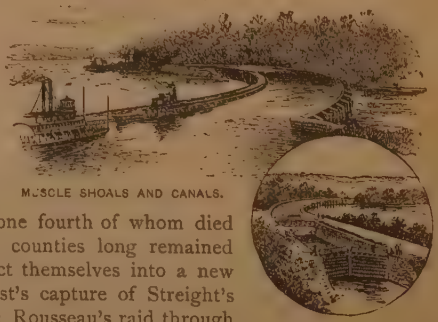
Mobile,	31,076
Birmingham,	26,178
Montgomery,	21,883
Anniston,	9,998
Huntsville,	7,995
Selma,	7,622
Florence,	6,012
Bessemer,	4,544
Eufaula,	4,394
Tuskaloosa,	4,215

north belonged to the district of Illinois. Montgomery lay in Florida, and Wetumpka in Illinois. The people here were so few, and so remote from the Atlantic settlements, that they did not unite with the Thirteen Colonies in their conflict with England. Envoys and agitators sent from the United States were seized and imprisoned in the stone keep of Fort Charlotte. When Spain declared war against the mother-country, Galvez, the governor of Louisiana, with 2,000 soldiers, besieged and captured Mobile, even then a French town. The Spaniards held the country until 1798, as a part of Florida. Georgia also claimed nearly all of Alabama and Mississippi, under her royal charter of 1665, and in 1798 and 1802 ceded them to the United States for $1,250,000.

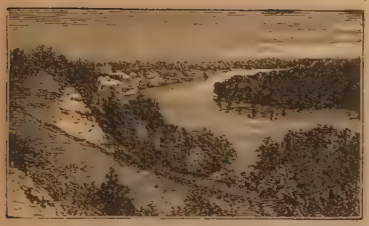

MONTGOMERY: SOLDIERS' MONUMENT.

About 1790, American pioneers began to settle in the northern valleys. In 1798, Congress formed Mississippi and Alabama, from 31° to 32° 28′, and between the Mississippi River and the Chattahoochee, into the Mississippi Territory; and four years later, the Territorial boundary was carried north to the Tennessee line. The Indians ceded vast domains to the incoming Americans, by the treaties of 1805; but Tecumseh aroused the Creeks to war, and in 1813 they destroyed Fort Mimms, with its 500 inmates. Gen. Coffee retaliated by killing 186 Indians in battle at Tallaseehatchee; Andrew Jackson won the fight at Talladega; Gen. White destroyed Hillabee; and after many other engagements, Jackson slew 600 Creeks at the Horse-Shoe Bend, losing 210 men himself. In the 30 engagements of the Creek war 4,000 Indians were killed. The Spanish power at Mobile was broken by Gen. Wilkinson's army from New Orleans, in 1813; and a British attack on Fort Bowyer, at Mobile Point, met a disastrous repulse, followed by Jackson's capture of Pensacola. In 1817, Congress organized the Territory of Alabama, with its present boundaries, and St. Stephens as the capital. Two years later, Alabama became a State, then having about 127,000 inhabitants, besides the Indians. Cahaba became the capital in 1820; Tuskaloosa, in 1826; and Montgomery in 1847. After frequent Indian wars, mainly with the Creeks, the tribes were removed to the Indian Territory, the Choctaws in 1830, the Chickasaws in 1834, the Cherokees in 1836, and the Creeks in 1837.

The population in 1860 included 526,271 whites, 435,080 negro slaves (owned by 30,000 persons) and 2,690 free negroes. Alabama was then the fifth State in the value of its agricultural products, and the seventh in wealth. Its valuation sunk from $792,000,000 in 1860 to $202,000,000 in 1865 (partly due to the emancipation of the slaves).


MUSCLE SHOALS AND CANALS.

Late in 1860 the National forts at Mobile were occupied by Alabama troops; and in January, 1861, by a vote of 61 to 39, the State seceded from the Union. In the mournful conflict which followed, she sent into the field 122,000 soldiers (in 69 regiments of infantry, 12 of cavalry, and 27 batteries), one fourth of whom died in the Confederate service. The northern counties long remained devoted to the Republic, and desired to erect themselves into a new State. The chief local events were Forrest's capture of Streight's 1,700 Union cavalry, in Cherokee County; Rousseau's raid through the southern counties; and Farragut's attack on Mobile, resulting in the capture of Forts Morgan and Gaines, and followed by the reduction of Spanish Fort, the storming of Blakely, and the occupation of Mobile (in April, 1865), by Gen. Canby's Union army of 45,000 men after much fighting. At the same time, Gen. Wilson, with 9,000 mounted troops from the north, stormed Selma, destroying the Arsenal and Navy Yard, and occupied Montgomery. Several thousand white Alabamians served bravely in the National armies.



THE ALABAMA RIVER.

The re-establishment of the National power was followed by unhappy years of carpet-bag administration, when the treasury of the State suffered from venal legislation, and her standard eight per cent. bonds fell to 20 cents on the dollar. Emerging at last from this cloud, Alabama has resumed her place as one of the most conservative of the Southern States, with a strong and capable "white man's government." Within ten years a wonderful and unexampled development of mineral wealth has gone forward, in the northern part of the State, which is already entering into competition with Pennsylvania as a producer of coal and iron. The output of pig-iron alone mounted from 449,492 tons in 1888 to 791,425 in 1889, and is still increasing, and building up new cities.

The Name of Alabama comes from its chief river, the word being of Indian origin and unknown meaning. There is a poetic legend that an exiled Indian tribe reached the great river, and its chief struck his spear into the shore exclaiming, *Alabama!*—that is to say: "Here we rest." Fragments of the Alabama tribe now live in Texas and Louisiana. Alabama is sometimes called THE COTTON-PLANTATION STATE.

MOBILE: THE SHELL ROAD.

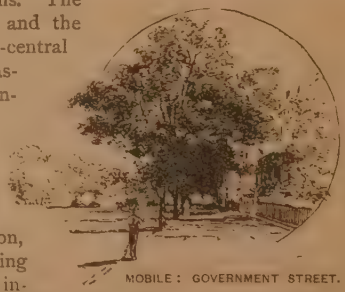
The Arms of Alabama bear an eagle, with raised wings, alighting upon the National shield, and bearing three arrows in his left talon. He holds in his beak a floating streamer, inscribed with the words HERE WE REST. This nobly patriotic device was adopted in 1868, to replace the older seal, a rude outline map of Alabama fastened to a tree.

The Governors of Alabama have been William Wyatt Bibb, 1817–20; Thomas Bibb, 1820–21; Israel Pickens, 1821–25; John Murphy, 1825–9; Samuel B. Moore, 1829–31; John Gayle, 1831–5; Clement Comer Clay, 1835–7; Hugh McVay, 1837; Arthur Pendleton Bagby, 1837–41; Benjamin Fitzpatrick, 1841–5; Reuben Chapman, 1847–9; Henry Watkins Collier, 1849–53; John Anthony Winston, 1853 7; Andrew Barry Moore, 1857–61; John Gill Shorter, 1861–3; Thomas Hill Watts, 1863–5; Lewis Eliphalet Parsons, 1865 (provisional); Robert Miller Patton, 1865–8; William Henry Smith, 1868–70; Robert Burns Lindsay, 1870; David C. Lewis, 1872–4; George Smith Houston, 1874–8; Rufus W. Cobb, 1878–82; Edward Asbury O'Neal, 1882–6; Thomas Seay, 1886–90; and Thos. G. Jones, 1890–2.

Descriptive.—Alabama is from 150 to 202 miles wide, between Georgia and Mississippi, and from 278 to 336 miles long, between Tennessee and Florida and the Gulf of Mexico. It is larger than New York or Pennsylvania, Virginia or England. The northeast contains the declining Alleghany ridges, melting away toward the south into a broken hill-country, and then into extensive plains, which for 60 miles inland are almost on the sea-level. There are four great divisions of the State—the cereal, mineral, cotton, and timber regions. The beautiful Tennessee Valley, in the temperate and healthful north, is a rich agricultural country, rising toward the east into the long blue highlands of the Raccoon and Lookout ranges. The Alabama section of the valley is 200 miles long and 20

MOBILE.

miles wide, covering eight counties, with 180,000 inhabitants. This is the Cereal Belt, its fertile red lands producing grains and grasses, cotton and fruits, with noble mountain-walls sheltering it alike from the icy northern winds and the intense heats of the southern plains, and traversed by rich lateral valleys, abounding in farms. The Mountain and Mineral Region covers the northeast, and the Alleghany Mountains, which open out across all north-central Alabama, with 5,500 square miles of rich coal-measures, and vast deposits of iron-ore and limestone. It includes 28 counties, with 400,000 inhabitants. The Agricultural Region, 70 miles wide, clear across the State, comes next, between 33° and 31° 40′, in the rotten limestone formation, scarce of water, but on the west occupied by fertile bald prairie and wooded prairie. This is the celebrated Black Belt, or Cane-Brake Region, where the negroes greatly predominate in numbers, raising vast quantities of cotton from the richest of lands. It includes 17 counties, with over 500,000 inhabitants. The Piney-Woods Region extends from the Black Belt to the Gulf, more than a hundred miles wide, abounding in long-leaf and yellow pine, and low and miasmatic along the rivers and coast, but elsewhere undulating, with a sandy soil. The summers are long, but tempered by the Gulf breezes, and vary between 73° and 94°. Here grow the magnolia and the sweet-bay, gigantic water-oaks and live-oaks, black gums and venerable cypresses. Turpentine and rosin are valued products; and vast quantities of lumber are shipped thence. The land is very cheap; and the exporting of naval stores is facilitated by the navigable bays and entrances along the coast.


MOBILE: GOVERNMENT STREET.

MOBILE: COTTON EXCHANGE.

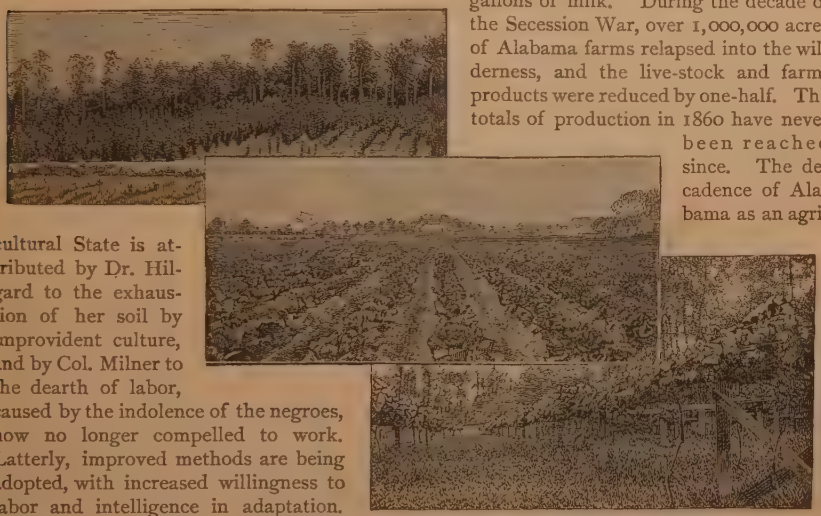
The Gulf coast of Alabama, only 50 miles long, is broken by Mobile Bay, entering the land for 30 miles, and navigable by an artificial channel for vessels drawing 19 feet of water. The deep and broad Mobile River, 50 miles long, enters the bay at its head. It is formed by the powerful Alabama (312 miles long, and from 600 to 800 feet broad), and the Tombigbee (navigable for 393 miles, to Fulton). The Black Warrior (300 miles long) is navigable from Tuskaloosa to its union with the Tombigbee, at Demopolis. The Coosa is 355 miles long, navigable for its lower ten miles, up to the falls at Wetumpka, above which there are 145 miles of rapids and rough waters. At Greensport begins another navigable reach, 180 miles long, to Rome, furnishing trade for six steamboats. The Tallapoosa is a picturesque stream 225 miles long, without commerce, on account of its rapid waters. The Chattahoochee may be ascended for 350 miles, to Columbus. The noble Tennessee River, heading southward from Virginia toward the Gulf, is repelled by the rocky barriers of northern Alabama, and sweeps around toward the north, with 250 miles of its course within this State, navigable by steamboats from Decatur to Knoxville, and from Florence to the Ohio River. The rocky Muscle Shoals long prevented the passage of steamboats between Decatur and Florence (38 miles). The Government has spent $4,000,000 in building a canal around the Shoals, and in 1889 the first steamboat traversed this avenue of commerce.

GREENSBORO: SOUTHERN UNIVERSITY.

The Climate of Alabama shows a mean yearly temperature of 65.2° (and 53¼ inches of rainfall) at Montgomery, and 66.7° (and 64¼ inches of rainfall) at Mobile. The variations are from 82° to 18° Fahrenheit in winter, and from 105° to 60° in summer. This is the temperature of Sydney, Valparaiso and Algiers. The autumn and winter winds

are from the northeast and northwest; the summer winds from the southeast. The picturesque hill-country is cool and healthy, with a genial and temperate climate. The lowland counties sometimes suffer from summer heat, and from malaria along the Gulf and rivers, and intermittent and congestive fevers. Snow is seldom seen, and the rivers never freeze over.

Agriculture employs 400,000 Alabamians, on 140,000 farms, with $80,000,000 worth of land and buildings, $4,000,000 in machinery, and $25,000,000 in live stock, the yearly products being valued at $57,000,000. The latter include 700,000 bales of cotton, 450,000 pounds of tobacco, 810,000 pounds of rice, 40,000,000 bushels of cereals (mainly corn and oats) and 52,000 tons of hay. Cotton, the great staple of Alabama, grows mainly in the Black Belt and the Tennessee and Coosa valleys. Mississippi, Georgia, and Texas alone surpass Alabama in this product. There are 114,000 horses, 121,000 mules, 800,000 cattle, 350,000 sheep, and 1,400,000 swine. The dairy products are 8,000,000 pounds of butter and 270,000 gallons of milk. During the decade of the Secession War, over 1,000,000 acres of Alabama farms relapsed into the wilderness, and the live-stock and farm-products were reduced by one-half. The totals of production in 1860 have never been reached since. The decadence of Alabama as an agricultural State is attributed by Dr. Hilgard to the exhaustion of her soil by improvident culture, and by Col. Milner to the dearth of labor, caused by the indolence of the negroes, now no longer compelled to work. Latterly, improved methods are being adopted, with increased willingness to labor and intelligence in adaptation. Supplies are produced at home, crops are diversified, and increased attention is paid to stock-raising and grasses. The soil is rich and productive, except in the south, much of which is sandy, and occupied by noble pine woods. In the north and centre are large forests of oaks, pines, hickories, poplars, chestnuts, cedars, mulberries, elms and cypresses. There are extensive areas of public lands, the land-office being at Montgomery.



LANDS OF THE ALABAMA LAND AND DEVELOPMENT CO.

Along the borders of Alabama and Mississippi, from Aberdeen to the Gulf, extends a belt of 850,000 acres of land, traversed and owned by the Mobile & Ohio Railroad, and controlled by the Alabama Land and Development Company, of Mobile. Parts of this imperial domain lie in the prairie and flat-woods belts, but most of its Alabama section is in the long-leaf-pine belt of Washington and Mobile counties, a region of sandy loam, cultivated with extraordinary ease, and already largely devoted to truck and fruit farms. The National Government, through the States of Alabama and Mississippi, granted these lands to the railway, which sells them at from $1.50 to $15 an acre, with long credits. Large areas have already been thus disposed of in Washington County, the oldest county in the State, and the seat of St. Stephens, its first capital; and other tracts have been taken up near Mobile, on the west. The genial climate renders it possible to raise several crops yearly, with level and shallow cultivation, and skillful fertilizing.

In this beautiful and highly diversified Commonwealth there is almost every variety of scenery, climate and product. Thus immigrants and investors find interest in Escambia's great forests of yellow-heart pine; Blount's deep caverns and famous apple-orchards; the gray prairies of Bullock and Butler; the hammocks of Conecuh; the Tyrolese scenery of Etowah and Marshall; the alluvial cane-brake region of Marengo; the corn-lands of Montgomery and Wilcox; the coal-fields of Walker and Jefferson; the gold mines of Talladega; and many other features of the mountain and plain counties.

SPRING-HILL COLLEGE, NEAR MOBILE.

The Minerals of Alabama are of great interest, and their development seems likely to change the State from an agricultural region to a manufacturing and mining country of almost limitless resources. The Black-Warrior, Coosa and Cahaba coal-fields and iron-beds are capable of enormous development. The iron ore in sight is of an incalculable amount, the Red-Mountain vein alone being 30 feet thick, half a mile wide and 100 miles long. The close proximity of inexhaustible supplies of bituminous coal makes this region, with its genial climate and rich agricultural valleys, the cheapest place in the world to manufacture iron. Within 15 years the output of pig-iron in Alabama has increased twenty-fold, and the State now ranks next to Pennsylvania and Ohio. The strata are from six to 150 feet deep, and include red hematite and brown ores. There are 50 blast-furnaces in operation, producing yearly 1,000,000 tons of pig-iron. The coal yield has risen to 3,380,000 tons. Among other mineral products are granite, white and colored marble in great quantities and variety (near Talladega), flagstones, roofing-slate, lime, soapstone, asbestos, porcelain-clay, ochre, and manganese. Gold, copper, graphite, lead and corundum are also found. The State contains many mineral waters, such as the Blount, Shelby, Bladon, Talladega, Jackson, White Sulphur and St. Clair Springs, all of which are sulphurous. There are also chalybeate and saline springs. At these points stand hotels for health-seekers, open all the year, and much visited by the aristocracy of the Gulf cities. Bladon Springs are in the Piney Woods, four miles from the Alabama River, with carbonated alkaline water; Blount Springs, in a triangular valley, 1,580 feet above the sea; and Bailey Springs, on the highlands near the Muscle Shoals, nine miles from Florence. The Hotel Monte Sano, near Huntsville, and 1,691 feet above the sea, has valuable iron and alum waters, with beautiful scenery and invigorating air. The Hygeia Hotel is a sanitarium at Citronelle, 30 miles north of Mobile, in the pine-woods; and Spring Hill, overlooking Mobile and the bay, has a similar institution, together with many delightful villas. Anniston, Verbena and Mountain Creek are popular vacation-resorts in the hill-country; and many health-seekers visit Evergreen, in the great pine-woods. The foremost of the salt-water pleasure-resorts is Point Clear, near the blue waters of Mobile Bay.

EAST LAKE: HOWARD COLLEGE.

MOBILE: HIGH SCHOOL.

Government.—The governor is elected for two years, the president of the Senate succeeding in case of removal. The secretary of State, treasurer, auditor, attorney-general, commissioner of agriculture, and superintendent of public instruction also hold for two years. The General Assembly, composed of 33 senators and 100 representatives (126 Democrats

and seven others), has biennial sessions, of not more than 50 days. The civil divisions of the counties are called "beats" or precincts, instead of townships or parishes. The judiciary includes the Supreme Court, with four justices; the ten districts of the circuit courts, with judges elected by the people for six years; the five chancellors of the courts of chancery in equity cases (established in 1839), and the probate courts. There are United-States District Courts at Birmingham, Montgomery and Mobile. The Capitol, at Montgomery, is a substantial building with a many-columned Grecian portico, and a high dome. It stands on Capitol Hill, at the head of Dexter Avenue, and dates from 1849. Here the Confederate Government was organized, February 6, 1861, and the Confederate Congress held its earlier sessions.

BIRMINGHAM: UNION DEPOT.

The Alabama State Troops have shown great efficiency at different times, when called out to support the civil authorities. They are armed with Springfield breech-loaders, the artillery including Gatlings, Napoleons and three-inch rifles. The First Regiment has its headquarters at Mobile; the Second, at Birmingham; and the Third at Selma. There are four batteries and two troops attached to the regiments. Mobile and Montgomery have colored companies. The State Troops hold regimental encampments, for a week in summer, and are inspected by United-States army officers.

BIRMINGHAM: COURT-HOUSE.

Charities and Corrections.—The Institution for the Deaf and Dumb, at Talladega, was opened in 1860, and has 53 inmates (whites). The Alabama Academy for the Blind, formerly united with the above-named, became independent in 1887. It has 30 pupils (whites). The State Insane Asylum was opened at Tuskaloosa, in 1861, and has 340 inmates. The State Penitentiary at Wetumpka dates from 1841. The county convicts are farmed out to contractors, and kept in private prisons and convict-camps, where they formerly suffered incalculably from cruel punishments, vermin and sickness, until, in many cases, death set them free. Recently, marked improvement has been made in this system. The Rev. F. H. Wines of Illinois pronounces Alabama's to be the best example of the lease system in the Union. The majority of the able-bodied convicts work in the mines near Birmingham. The report of the State health officers for 1889 showed a mortality of 20 per cent. in the Coalburg prison-camp. Alabama has 1,500 insane persons, 2,200 idiots, 1,400 blind, 700 deaf-mutes, 700 paupers, and 1,400 prisoners.

National Institutions.—The Mount-Vernon Barracks occupy a high plateau 28 miles north of Mobile, with their massive buildings amid oak and magnolia groves, surrounded by heavy brick walls. This is one of the handsomest posts of the army; and dates from 1829, when Andrew Jackson ordered an arsenal to be established here, on the site of one of his favorite camp-grounds. In 1873 it was transformed into a barrack, now occupied by part of the 4th United-States Artillery. In 1889–91 Geronimo, Nana, Loco, and 380 other Arizona Apaches, prisoners of war, were quartered here, under active religious and educational influences. The United-States Marine Hospital is at Mobile. Fort Morgan, 30 miles south of Mobile, was founded in 1819, on the site of Fort Bowyer, and cost $1,250,000. Fort Gaines is a pentagonal work on Dauphin Island, three miles from Fort Morgan, across the channel. Neither

MONTGOMERY: COLORED SCHOOLS.

of these works is garrisoned. The lighthouses are on Sand Island, Mobile Point (Fort Morgan), Dog-River Bar, Choctaw Pass and Battery Gladden.

Education, in its higher forms, began with Greene Academy, at Huntsville, in 1812. A good public-school system was inaugurated in 1854, but the war and reconstruction crippled it seriously. The normal schools have all been founded since 1872, and contain 1,200 students. The normal schools for whites are at Florence, Jacksonville, Livingston and Troy. In 1880, Alabama, out of a population of 1,262,505, had 433,447 persons above the age of ten who could not write. This appalling army of illiterates is mainly composed of negroes and rustics; and the local educators are making earnest efforts to secure more and better means to reduce the prevailing ignorance. Alabama has a school population of 485,551, with an average daily attendance of 162,516. The school age is from 7 to 21; the average duration of the school year, 155 days in the cities, and 70 days in the country; the yearly expense, $750,000. The Teachers' Reading Circle, the Colored Teachers' Association, the State Teachers' Association (white), the Congressional (District) Teachers' Institutes, and other active agencies are achieving a good work in raising the educational standard.

HUNTSVILLE: THE POST-OFFICE.

The University of Alabama occupies an estate of 500 acres, at Tuskaloosa, with 18 professors and 240 students. It was opened in 1831, and has an endowment of $300,000, from lands granted by Congress in 1802, and held in trust by the State, which pays eight per cent. a year. The National troops burned the building, in 1865; and there are now four new edifices, enclosing a quadrangle, with Clark Hall, containing the great hall and the library (of 9,000 volumes). The three courses are classical, scientific, and civil engineering, with a law department containing 19 pupils. Military training is a prominent feature. The State Agricultural and Mechanical College, at Auburn, in the Cereal Belt, arose in 1872, as one of the National land-grant schools of science; and has 12 instructors and 250 pupils. The Southern University, at Greensboro, pertains to the M. E. Church South, and has 12 instructors and 220 students. Before the war it was a rich institution, and it is now slowly regaining its former dignity. Howard College is a Baptist institution, founded in 1842, at Marion, and since 1887 located at East Lake, five miles from Birmingham, in the Ruhama Valley. Spring-Hill College is a Catholic institution near Mobile, opened in 1830, and with 100 students. The Medical College of Alabama was founded in 1859, at Mobile, and has 12 instructors and 100 students. There are 35 academies, with 6,000 students, including the colleges for women at Anniston, Tuskaloosa, Tuskegee, Huntsville, Tuscumbia, Athens, Eufaula, Florence and Talladega.

HUNTSVILLE: COUNTY COURT-HOUSE.

The colored people of Alabama have four normal schools, those at Huntsville and Mobile being older than the white normal schools. The State Normal and Industrial School was founded in 1881, as an outgrowth of the Hampton (Va.) school, and has been very successfully conducted by Booker T. Washington, an eminent colored educator. Its corn-fields, orchards, workshops and buildings occupy an old plantation near the patrician town of Tuskegee, in the Black Belt. The State makes a yearly appropriation, paying part of the expenses of this school, which has 600 earnest and industrious students. Talladega College was founded by the American Missionary Association in 1867, and has several buildings, and large tracts of farm-lands. There are 427 colored students, none of them collegiate. The theological school for Congregational ministers is at Talladega; that for Baptists is at Selma University; and the Presbyterians conduct an institute for training colored ministers, at Tuskaloosa.

BIRMINGHAM: SLOSS IRON & STEEL CO.

The State has 3,000 Sunday schools, with 20,000 teachers and 160,000 pupils. The religious proclivities of the people incline toward the Methodist and Baptist sects, the first having above 200,000 members, and the second 175,000. There are 12,000 Presbyterians, and 4,000 Episcopalians.

Newspapers came to Alabama in 1812, when Pasham started the *Madison Gazette* at Huntsville. St. Stephens followed with *The Halcyon*, in 1814; Mobile with *The Gazette*, in 1816; and Tuskaloosa with *The Republican*, in 1818. The Florence *Gazette*, Montgomery *Republican* and Claiborne *Clarion* appeared in 1820. Alabama now has 169 newspapers (15 daily, 144 weekly, and 8 monthly), with an average circulation of 681 copies. Prominent among these are the Mobile *Register* (founded in 1820), Montgomery *Advertiser* (1828), Selma *Times-Mail* (1825), and Birmingham *Age-Herald*.

The Chief Cities of Alabama (except Mobile) are modern, and some of them have risen with marvelous rapidity in the last 15 years. Mobile, successively French, English, Spanish and American, and the commercial metropolis of Alabama, is one of the chief cotton-depots in the Union, and sends away 230,000 bales yearly, mainly by railway. There is also a large trade in lumber and timber, general merchandise and coffee, coal and naval stores, besides many profitable manufactures. The broad and quiet streets are shaded throughout with live-oaks and magnolias, and the gardens are fragrant with the perfumes of the jessamine and the orange. Government Street has many beautiful and embowered residences; and the Shell Road is a famous harbor-side drive. The city enjoys extensive railway connections, and has steamship lines to New York and Liverpool. Montgomery, near the centre of the State, is a growing city, with artesian water, street-cars, and electric lights, a prosperous railway centre, and a winter resort for Northerners, who enjoy its soft air and embowered streets. It is one of the old-time Southern cities, with an environment of large-pillared country seats, nestling in live-oak groves, and a State Capitol overlooking a great expanse of country, through which flashes the silvery line of the Alabama River. Since 1865, the population has quintupled, and many factories have sprung up. One hundred and thirty thousand bales of cotton are handled here yearly.

BIRMINGHAM: SLOSS IRON & STEEL CO.

Birmingham, the foremost city of Alabama, is in Jones Valley, six miles from Red Mountain, which contains millions of tons of hematite iron ore, close to inexhaustible supplies of coal and limestone. Founded in 1871, by the Elyton Land Co., it has become "the Magic City of the South," with the largest rolling mills below Richmond, manufacturing rail and bar iron, plate and sheet iron, and factories for making ice, glass, stoves, bridges, chains, steel cars, and many other articles. It is recorded that Krupp, the Iron King of Europe, said: "Should fate drive me from Germany, I would go to Birmingham, Alabama;" and the *London Times* prophesied that this is bound to become the greatest metal-workers' city in America. The

ANNISTON: ST. MICHAEL'S AND ALL ANGELS.

contiguity of the iron and coal makes it possible to produce the metal at the lowest possible cost for labor; and the convergence here of six railways gives unusual facilities for shipment. Twenty-five furnaces are now at work in and near this city, giving cheap iron to the world.

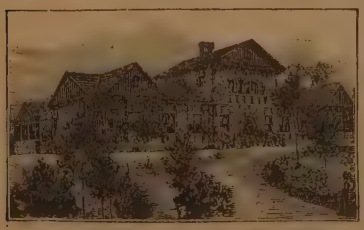
BIRMINGHAM: JOSIAH MORRIS BLOCK.

One of the pioneers in the astonishing development of Alabama's mining industries was the Sloss Furnace Company of Birmingham, which afterwards bought the Coalburg Coal and Coke Company, and formed the Sloss Iron and Steel Company. This vigorous corporation has a paid-in capital of $3,700,000, and employs 3,500 men, with large mines, 800 coke-ovens, and four furnaces, adequate to the production of 450 tons of pig-iron daily. Here the world's problem of cheap iron is being solved, where the ore of Red Mountain, that mineral marvel of America, is manufactured into the best quality of metal, capable, with proper treatment, of successful competition with the finest Russian and Norway iron.

At Birmingham, too, is the Morris Block, erected and owned by Josiah Morris, the millionaire banker of Montgomery, who was one of the earliest investors in the present city, and by whose aid the enterprise was carried through some of its earlier trials. This is one of the finest and costliest office buildings in the South, an architectural credit to the city, and thoroughly fire-proof. It is occupied by banks and for offices of many kinds. Its upper floors have been utilized as the Morris Hotel, on the European plan, the rooms being the choicest in the city.

ANNISTON: THE ANNISTON INN.

Anniston, one of the loveliest cities of the South, and also one of the most remarkable centres of the iron industry in the country, rests on a healthy and pleasant plateau of northeastern Alabama, 900 feet above the sea, amid the picturesque wooded spurs of the Blue Ridge. Here the Georgia Pacific and the East-Tennessee, Virginia & Georgia Railroads intersect; and the Alabama Mineral Railroad runs northwest to the Queen & Crescent system, at Attalla, and southwest to the Georgia Central system, at Sylacauga. Anniston is built upon and surrounded by enormous beds of brown hematite ore, easily accessible and cheaply mined, low in silica and phosphorus, and containing above 50 per cent. of metallic iron. The first-class coking coals of the Coosa and Cahaba mines are respectively within 25 and 45 miles; and the Anniston valley abounds in limestone for fluxing. Seven charcoal furnaces make yearly 50,000 tons of tough car-wheel iron; and two coke furnaces make 100,000 tons of pig-iron. On this site a furnace was built and destroyed during the Civil War. Samuel Noble, a practical English iron-worker, then running a foundry at Rome, Georgia, visited the ruins about the year 1870, and becoming impressed with the enormous deposits of excellent brown iron ore, bought up large areas, upon which the Woodstock Iron Company started its first furnace in 1873, and a second in 1879. Associated with Mr. Noble in



ANNISTON: NOBLE INSTITUTE FOR BOYS.

the foundation of the city were Gen. Daniel Tyler and Alfred L. Tyler; and the new settlement received the name of Annie's Town (contracted to Anniston), from the Christian name of Mrs. Alfred L. Tyler. Until 1883 the great domains of the Woodstock Company were withheld from public sale, and during that period the corporation built streets and parks and laid out a model city, at great cost. Then they began to sell building lots, and the city flashed into life, with a host of manufacturing industries, making iron, steel, stoves, horse-shoes, furniture, brick, ice, and many other articles, mainly dependent on the molten ore of the furnaces. In 1887 the land interest of the Woodstock Company, was sold to the Anniston City Land Company, which now owns nearly $5,000,000 worth of property, including 2,700 acres in the city, the Inn, and many dwellings. The country about Anniston is very fertile, especially along the Choccolocco and Alexandria Valleys, and among its other products the city receives 60,000 bales of cotton yearly. Under these favorable circumstances, Anniston has constructed a capital cotton compress, and one of the largest cotton-mills in the South. The Anniston Inn is a handsome Queen-Anne building, with broad verandas and a richly decorated interior, standing on an eminence near the centre of the city, and commanding fine views of the mountains. Anniston has 25 churches, the chief of which is the great stone and marble edifice of St. Michael's and All Angels, crowning a beautiful hill that overlooks the city and its mountain-guards. This noble ecclesiastical structure was built in 1889-90, by John W. Noble, as a memorial of his father, James Noble, and his brother, Samuel E. Noble, one of the founders of the city. Noble Institute for Boys and Noble Institute for Girls were established by Samuel E. Noble, in recognition of the fact that in this beautiful new city of mountains the best educational facilities should be made ready for the young people. The two institutes are of a high grade, with first-class faculties, abundant laboratory and other facilities, and carefully planned courses in the classics, languages, science, art and music. The buildings are handsome and elaborate architectural works, in pressed brick and stone, and provided with all modern improvements and conveniences.

ANNISTON: GRACE CHURCH. NOBLE INSTITUTE FOR GIRLS: THE SCHOOL AND DORMITORY.

The interesting development of the new Alabama cities marks the dawn of a new era in one of the most conservative of the Southern States. The fact that the pig-iron product of the United States now exceeds that of Great Britain, and reaches nearly 10,000,000 tons a year, marks one of the most notable of modern industrial revolutions. In 1880, Alabama was the tenth State in respect to the production of iron, but now she occupies the third place, and yields one tenth of the American output, and one half of the pig-iron made in the South.

DECATUR: THE MANUFACTURING QUARTER.

As a producer of iron ore, Alabama now stands second only to Michigan, having passed Pennsylvania and New York, and yielding 1,570,000 tons yearly. This is the cheapest iron in the world, owing to the large open workings and the easy facilities for mining, which also enable the local mining companies to get out the ore for 69 cents a ton for labor, which is a lower rate than

obtains anywhere else in the United States, the average American expenditures for wages per long ton being $1.06. The capital invested here in iron-ore mining is above $5,000,000, the entire American investment in this line being $110,000,000.

The most valuable ally of the iron manufacture here is the coal-mining industry, which began in a small way in 1853, and reached by 1876 a yearly output of 100,000 tons, mainly for local use. This product has now increased to nearly 4,000,000 tons; and 7,000 men are employed in its manipulation. The three great coal-fields cover 8,660 square miles, lying along the valleys of the Warrior, Coosa and Cahaba Rivers, and bearing their names. The product includes all the bituminous varieties, such as gas, coking, block, splint and cannel, and provides the growing local industries with inexhaustible supplies of fuel for steam and furnace uses, and for domestic purposes. Jefferson County (of which Birmingham is the capital) produces more than two thirds of the Alabama coal; and Bibb and Walker Counties come next, each with about 500,000 tons a year.

TUSKALOOSA: UNIVERSITY OF ALABAMA.

The development of the wonderful mineral resources of the State has been aided by the Geological Survey, which has been in progress since 1873, under the direction of the State Geologist, Dr. Eugene A. Smith, of the University of Alabama. Reports have been published almost yearly, and the survey has prepared an elaborate museum of minerals for the University. This is one of the benefits accruing to the State from its great educational institution, whose teachings are made general and popular by the appointment of three free students from each county. Many of the leading men of Alabama were educated at the University, which is charmingly located in the cultivated city of Tuskaloosa, whose broad streets, shaded by the native water-oaks, run down to the Warrior River, at the head of steamboat navigation, in a rich cotton district. Steamboats run regularly between the university city and Mobile, the great sea-port of Alabama.

The intelligent development of the material wealth of the hills has caused the active and growing city of Bessemer to grow up on the lone fields of an Alleghany glen. A solitary log-hut stood here at the middle period of President Cleveland's administration, where now the spires and factory-chimneys of an industrial metropolis are outlined against the deep green of the mountains.

BESSEMER: OFFICE OF THE BESSEMER LAND AND IMPROVEMENT CO.

Bessemer was founded in 1887, and within three years arose to the position of an important manufacturing city and railway centre, with seven furnaces in full blast, large rolling mills and cast-iron pipe-works (capacity 350 tons daily), fire-brick works, and many smaller industries, besides handsome public buildings and business blocks, eight churches, and two newspapers. The reason for this extraordinary development is found in the existence here of a long mountain-range of iron, occurring in veins from five to 20 feet thick, and containing billions of tons of ore, under conditions of surprising economy for development. The ore can be mined and delivered at the furnaces for 55 cents a ton. Within 25 miles there are 600,000 acres of coal-fields, estimated to contain 30 billion tons, and yielding 62½ per cent. in coke. The great mines

BESSEMER: DE BARDELEBEN COAL AND IRON COMPANY.

on this belt deliver coal in Bessemer at 80 cents a ton. The purest Trenton limestone abounds in Jones Valley, and is delivered in the city at 60 cents a ton. With these notable advantages, iron is manufactured here at a minimum of cost, and competes with the cheap iron of England. The city stands 600 feet above the sea, in the beautiful amphitheatre of Jones Valley, between Red Mountain and Rock Mountain, 13 miles below Birmingham. It gathers nine railways into its arms, and confidently looks for a great future development in general manufacturing and as a trade-centre. The founder and chief owner of this iron city of North Alabama is the Bessemer Land and Improvement Company, which is conducted with an enterprise and sagacity that make it certain that in the course of a few years Bessemer will fairly rival all of its older neighbors.

BESSEMER: MONTEZUMA HOTEL.

BESSEMER: THE CHARLESTON BLOCK.

The De Bardeleben Coal and Iron Company, Consolidated, is the great mainspring of the life of Bessemer, and owns seven new and fully equipped blast-furnaces, with a daily capacity of 800 tons; seven iron-mines, yielding 4,000 tons daily; seven coal-mines, with a daily capacity of 5,000 tons; 900 coke ovens; 25 miles of standard-gauge railway; immense limestone quarries; and numerous other valuable properties. In 1889 the De Bardeleben Company consolidated with the Bessemer Iron and Steel Company and other corporations owning vast areas of coal and iron lands, and formed a new company, with $10,000,000 capital, and employing 2,000 men. The mineral lands cover 140,000 acres, and the yearly output of the furnaces is 250,000 tons of pig-iron, worth $4,000,000.

BESSEMER: DE BARDELEBEN COAL AND IRON CO.

Sheffield is another of the interesting new cities of northwestern Alabama, with its fortunes securely based on the manufacture of iron. It was founded in 1885, on a bold bluff midway between Tuscumbia and Florence, and fronting on the broad and deep Tennessee River. Unlimited supplies of fine brown iron-ore and the best of coking coal are available within 20 miles, and have resulted in the erection here of five blast-furnaces, with a capacity of 700 tons of pig-iron daily. The ores are of remarkable excellence, requiring only a pound of coke to make a pound of metal, and producing but little slag. A great advantage enjoyed by this "Iron City on the Tennessee River" is in the low price of freights by water, amounting to but $1 a ton to St. Louis. Many important ports on the Tennessee, Ohio and Mississippi are reached by steamboats from this city; and railways run to Birmingham and other points. The Sheffield Land, Iron and Coal Company enjoys the honor of having founded this hive of industry and commerce, with its busy factories and fine public buildings, where five years ago stretched the lonely fields of a rural plantation.

SHEFFIELD: THE SHEFFIELD HOTEL.

The magnificent inland water-way of the Tennessee River, navigable now from North Carolina to the Ohio, is becoming a notable highway for iron and coal, cotton and grain, outward bound from North Alabama, and delivered at many cities of the West and Northwest. Even such dignified and ancient communities as Florence are being forced, by the demands the New South

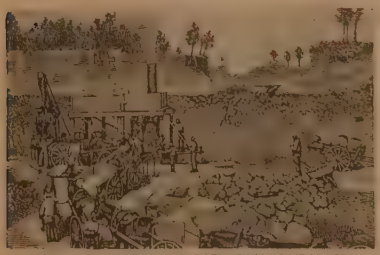
FLORENCE: SYNODICAL COLLEGE.

makes upon them, on account of their unrivalled commercial strategic value, to exchange their placid seclusion for a new civic life, full of energy and enterprise.

Florence, a pleasant old Alabama college-town, on a rolling plateau in the cotton region of the north, somehow was drawn into the resistless whirl of modern activity in 1887, and within two years the population increased five-fold. It has the same remarkable combination of iron, coal and lime that has enriched other localities in the State, and in addition it enjoys admirable river commerce, by which the products of its mills can be delivered in the North at trifling charges for freight. Iron is freighted by steamer to St. Louis for $1 a ton. The advantages of the site have drawn to this beautiful river-city a number of large manufacturing companies, and many millions of Northern capital, covering widely diversified interests; and it is thought that Florence will become one of the half-dozen chief cities of the South. The chief development corporation of this locality has been the Florence Land, Mining and Manufacturing Company, which started its development in 1887, and has continued it.

SHEFFIELD LAND, IRON AND COAL COMPANY.

Many other manufacturing towns have been started in Alabama. Some of them will succeed, in greater or less measure, and others will remain names and nothing more. Thus the old-time Chickasaw, at the foot of Colbert Shoals, in the far northwest, bloomed out in 1890 as the coming city of Riverton, with iron-furnaces to be, and basic steel plants, and elevators. So also Pell City seeks to rise, where several railways intersect, in the rich Coosa Valley.



IRON MINES: DE BARDELEBEN COAL & IRON CO.

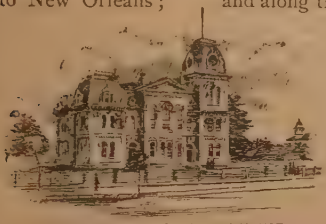
Fort Payne was founded in 1889, by New-Englanders, who bought 32,000 acres of land here, with the coal-seams of Lookout Mountain on one side, and the iron ores of Red Mountain on the other, and beds of limestone between. Bluffton stands high on the Eastern-Alabama foot-hills, with cliffs of hematite iron ore all about it, furnishing material for several active furnaces. Decatur, on the broad and navigable Tennessee, and in the cereal belt, was a war-shattered old village of 1,500 people early in 1887, when New Decatur arose, to be a city of 8,000 people. Selma, on the Alabama, is an important cotton-market, manufacturing town, and railway centre. Huntsville, famous for its great flowing spring, is the capital of the richest of the Tennessee-Valley counties, with profitable manufactures and a beautiful surrounding country. Eufaula stands perched on a bold bluff over the Chattahoochee. Tuskaloosa is a city of 5,000 people, on the Warrior River, between the rich corn and cotton fields of the valley and the famous Warrior coal-fields. Talla-

SHEFFIELD LAND, IRON AND COAL CO.'S OFFICE.

dega, Stevenson, Attalla, Gadsden and other new municipalities, are fast coming into public view.

THE TENNESSEE RIVER AT SHEFFIELD.

Railroads were initiated here by the Tuscumbia, Courtland & Decatur line (44 miles) in 1831–4. The State now contains over 3,000 miles of tracks, the chief of which are the Alabama Great Southern, from Chattanooga to Meridian, with 245 miles in Alabama; the South & North, from Montgomery to Decatur, 189 miles; the Mobile & Montgomery, 178 miles; the Selma Division of the East-Tennessee, Virginia & Georgia line, with 172 miles in Alabama; the Meridian and the Mobile and Birmingham Divisions; the Georgia Pacific, 241 miles; the Memphis and Charleston, 151; the Alabama Midland, from Montgomery to Bainbridge, Ga.; the Savannah & Western, 156; the Alabama Mineral, 127; and the Kansas City, Memphis & Birmingham, 118. The other roads, 25 in number, have each less than 100 miles of track. The railroads include those from Mobile northeast to Montgomery and to Atlanta, from Mobile north to Selma and Birmingham, from Mobile northwest to Meridian, Miss. (and Cairo and St. Louis); from Meridian east to Selma and Montgomery, from Montgomery to Troy, Columbus and Opelika (a loop line); from Selma across the Coosa Valley to Talladega and Rome; from Mobile east to Pensacola and west to New Orleans; and along the Tennessee Valley. The magnificent systems of the East-Tennessee, Virginia & Georgia Railway and other lines afford capital facilities for passengers and freight from Central Alabama northeastward to Chattanooga and the North, eastward to the first-class seaport of Brunswick (Ga.), and southwestward to Mobile and the Gulf ports. The East-Tennessee, Virginia & Georgia connects also with the Atlantic Coast line at Jesup. The Mobile & Ohio Railroad traverses the rich farming territory of the Alabama Land & Development Company, in the southwestern counties.


TUSCUMBIA: COUNTY COURT-HOUSE.

Navigation by canoes was superseded by flat-boats, taking three months from Mobile to Montgomery; and in 1818 the St.-Stephens Steamboat Company received incorporation, followed by the Steamboat Company of Alabama. The early boats took 15 days to go from Mobile to Montgomery. There are now 43 steamboats (21 for passengers) on the rivers, with a tonnage of 7,008, and a value of $250,000. From the high bluffs along the rivers, cotton is sent down to the boats on slides, and passengers use long stairways. Alabama also has 73 sailing-vessels, of 8,000 tons. Mobile is the only port in the State, and her commerce has declined seriously, on account of railway competition and discrimination — New Orleans and the Atlantic ports taking her cotton exportations, and Pensacola shipping the lumber. Mobile's exports were $22,500,000 in 1870. In 1878, they had fallen to $9,000,000.

Manufactures are mainly in the northern counties, where the recent development of vast coal and iron deposits has revolutionized the country, causing the rise of new manufacturing cities, like Birmingham and Anniston, Florence and Sheffield, and followed by the building of many furnaces and rolling-mills. In 1880 there were 2,000 factories, with $10,000,000 capital, employing 10,000 operatives, and with an annual product of $14,000,000. The chief items were $4,315,000 in flour and grist-mill products, $2,650,000 in sawed lumber, $1,452,000 in iron and steel, and $1,352,000 in cotton goods. The manufacturing interests of Alabama have increased prodigiously

FLORENCE: NORMAL SCHOOL.

MONTGOMERY: HIGH SCHOOL.

within the past decade, especially in iron and steel and the connected industries. The largest cotton-mills are at Tallassee, 35 miles from Montgomery, at the great falls of the Tallapoosa, where 500 operatives are kept at work, in commodious stone factories. The works were started in 1845, and the present mill dates from 1854, having been built at a cost of $400,000. During the Secession War, fire-arms were made here, but now the products are sheetings, shirtings, duck, and cotton rope and yarn.

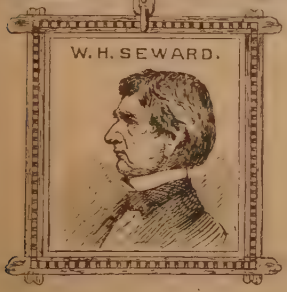
The Finances of Alabama show an estimated valuation of $378,000,000, with a State bonded debt of $9,240,000 (besides $250,000 unfunded), and county and municipal debts of about $5,000,000. The yearly State, county, and municipal taxes are above $2,000,000 yearly. The first bank was founded at Huntsville in 1816. There are now 21 National banks, with about $3,500,000 capital; and six savings-banks, with deposits of $1,300,000. There are also seven State banks, with a capital of $700,000.

MONTGOMERY: JOSIAH MORRIS & CO.'S BANK.

The banking-house of Josiah Morris & Co. is the pre-eminent private financial institution in Alabama, and exercises an important and progressive influence in Montgomery, the capital of the State, as well as in the great mineral regions of Central and Northern Alabama. Josiah Morris originated on the Eastern Shore of Maryland, in 1818, and, after a number of years of active business in Georgia and Louisiana, in 1851 he settled at Montgomery, where his close attention to business and his keen insight have been the corner-stones of a wonderfully successful career. The firm has helped the great railroad enterprises of this section with counsel and credit; and especially has contributed largely to the building of the South and North line, and the consequent development of Birmingham. The large and increasing business of this house has compelled the erection of a new banking building, which is an ornament to the capital of Alabama. Mr. Morris's associate is F. M. Billing. Josiah Morris & Co. carry on a general banking business.

The First National Bank of Birmingham, although established within a very few years, now occupies a proud position among the financial institutions of the South, and has the largest deposits and does the largest business of any bank in the State of Alabama. With a paid-in capital of $250,000, this corporation already has a surplus exceeding $200,000; and its first-class and secure lines of business assure the continuous increase of this practical reserve fund. The efficient aid of such a powerful financial institution as this has been wisely exerted to advance the prosperity of Birmingham in many ways, and to build up and sustain the great industries which have risen here. At once conservative and enterprising, the First National has continually developed its opportunities and resources, with an unwavering faith in the iron wealth of the Alabama hills as the true foundation for a powerful monetary institution; and the result has amply justified the sagacity of the undertaking. Its building was the first three-story brick structure in Birmingham, erected for this bank in 1872, by Charles Linn, in an old corn-field, and then known all over Alabama as "Linn's Folly." The First National was organized in 1884, by the consolidation of the National Bank of Birmingham and the City Bank. Then there were two banks in the city, where there are now twelve.

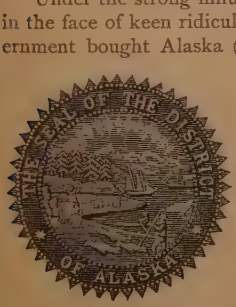
BIRMINGHAM: FIRST NATIONAL BANK.



HISTORY.

Sailing eastward from Kamchatka, in 1741, the Russian navigators, Chirikoff and Bering, were the first Europeans to see the Alaskan shores, reaching the lone north land at different points. These intrepid and ill-fated explorers were followed by the Siberian fur-hunters, advancing along the Aleutian group, and enslaving the natives, nine-tenths of whom disappeared between 1760 and 1818. In 1799 the Emperor Paul, of Russia, granted a twenty years' charter to the Russian-American Company, whose iron-willed manager, Baranoff, conquered the country as far as Sitka (which was founded in 1801); established a colony in California; and opened trade with China, Honolulu and the Spanish colonies. In 1818 Russia interposed between the natives and the companies, and thousands of Aleuts and others were Christianized, largely by the labors of Innocentius Veniaminoff, afterwards Primate of the Greek Church.

Under the strong influence of Seward and Sumner, and in the face of keen ridicule and opposition, the U.-S. Government bought Alaska (a profitless land for Russia), in 1867, for $7,200,000 in gold. American soldiers then garrisoned the old Russian forts; but a few years later they were withdrawn, and the only armed defenders now are a small war-vessel and a company of marines, who assist the civil government in preserving the public peace and guarding the public property. For many years this great hyperborean province was known as Russian America. The name Alaska



STATISTICS.

Settled at Kadiak, in	1784
Founded by	Russians.
Annexed to the United States,	1867
Population in 1880,	33,426
Population in 1890,	31,795
Whites,	4,393
Chinese,	2,287
Mixed (Russian and Native),	1,809
Indians,	23,274
Eskimos,	12,787
Thlinkets,	4,737
Athabaskans,	3,439
Aleuts,	968
Tsimpseans,	953
Hydas,	391
1 inhabitant to 17 square miles.	
Voting Population,	0
Vote for Harrison (1888),	0
Vote for Cleveland (1888),	0
Net Public Debts,	0
Real Property, Personal Property, (estimated),	$5,000,000
Banks,	0
Area (square miles),	531,000
U. S. Representatives,	0
Militia (Disciplined),	0
Counties,	0
Cities,	0
Towns and Villages,	320
Post-offices,	17
Railroads (miles)	0
Vessels,	0
Tonnage,	0
Farm Land (in acres)	0
Colleges and Professional Schools,	0
Government Schools,	18
Mission Schools,	32
School Children,	1,300
Newspapers,	3
Latitude,	54° 40′ to 71° 23′
Longitude,	181° W. to 173° 13′ E.
Temperature,	— 70° to 120°
Mean Temperature, Sitka,	43°

CHIEF PLACES AND POPULATIONS IN 1890.

Juneau,	1,253
Sitka,	1,100
Karluk,	1,123
Metlakahtla,	823
Kadiak (St. Paul),	495
Kingaghee,	488
Port Clarence,	485
Hoonah,	438
Alitak,	420
Afognak,	409

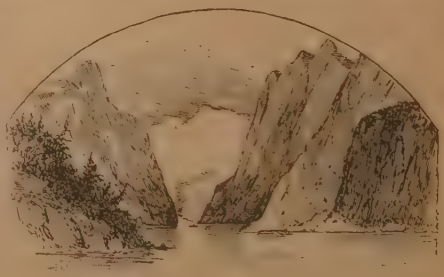
is from the Aleutian word *Alakshak*, meaning "The Continent" or "Large Country," modified by the Russians into *Aliaska*, and given to the great peninsula south of Bering Sea. When the United States bought the country, the various names of Polario, American Siberia, Zero Islands and Walrussia were suggested for it; but Charles Sumner secured the adoption of the present title.

SITKA: CUSTOM HOUSE AND BARRACKS.

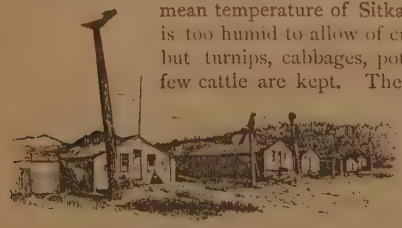
The popular name for the District is UNCLE SAM'S ICE BOX; and it has also been called THE LAND OF THE MIDNIGHT SUN, and THE LAND OF SUNDOWN SEAS. The arms of Alaska show men driving seals, vessels among the islands, and lofty mountains, with brilliant rays above them.

The Governors of Alaska have been: John H. Kinkead, 1884-5; A. P. Swineford, 1885-8; and Lyman E. Knapp, 1888-93.

The area of Alaska is of imperial dimensions. North and south it extends between Dixon Entrance and Point Barrow for 1,200 miles, which equals the distance from Maine to Florida; and its western extension of 2,100 miles, between Portland Canal and Attu, approximates the distance from Virginia to California. The District equals in area one-sixth of the United States, or one-seventh of Europe. The lower part, from Dixon Entrance to Mt. St. Elias, consists of a strip of mainland about thirty miles wide and five hundred miles long, made up chiefly of rough and broken country, composed of numerous irregular ranges of steep, lofty and often snowy mountains, among whose curving crests runs the international boundary. This huge Cordilleran wall looks westward upon a maze of deep straits and sounds, including the magnificent Clarence Strait, a hundred miles long and four miles wide, and as straight as a canal. Amid this labyrinth of sea-waters the Alexander Archipelago follows the shore-line for 300 miles, with the Prince-of-Wales, Admiralty, Baranoff and other islands, large enough for states, and thousands of minor islands. The climate of southern Alaska is moderated by the influence of the ocean, and does not have the formidable extremes of heat and cold that persecute New England. The mean temperature of Sitka is 54.2° in summer, and 31.9° in winter. It is too humid to allow of curing hay, or many other agricultural industries, but turnips, cabbages, potatoes, and other vegetables are grown, and a few cattle are kept. The temperature resembles that of Northern Scotland and parts of Norway; and the winters are milder than those of New York. The rainfall is from 80 to 136 inches in a year.



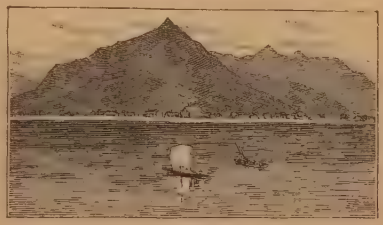
GRANVILLE CHANNEL. EN ROUTE TO ALASKA.



INDIAN VILLAGE, WITH TOTEM POLES.

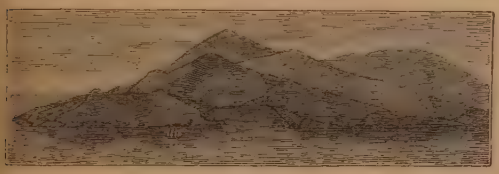
In the great forests of southeastern Alaska, the prevailing tree is the Sitka spruce, resembling the silver fir of California, sometimes reaching a height of 250 feet, and covering many thousands of square miles of the Alexander Archipelago. It ascends the sides of the steepest mountains for over 1,000 feet. The yellow cedar is a hard and durable wood,

pleasantly perfumed, and admitting of a high polish. There are vast forests of spruce and hemlock, but only a few mills have been erected, on account of the uncertain tenure of land. Among the inhabitants of these woods are black, brown and cinnamon bears, lynxes and lynxes, minks and martens, white and silver-gray foxes, and millions of undisturbed birds.

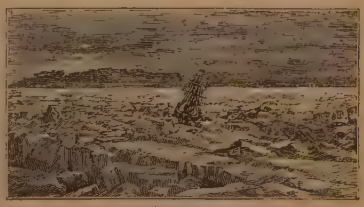


UNALASHKA.

The great northward and westward curve of the coast from Dixon Entrance covers a length of 550 miles, to Prince-William Sound, whence the shore-line trends south and west, 725 miles, to the tip of Aliaska, and thence zigzags north and east to Bering Strait and the Arctic Ocean. The Kadiak group, 600 miles west of the Alexander Archipelago, covers nearly 6,000 square miles, and has several interesting villages of the descendants of Russian fathers and Alaskan mothers, and the homes of nearly 500 Kaniag natives, a fast-fading race. Two hundred miles farther westward, in the stormy and misty ocean, rise the Shumagin Islands, inhabited by Californian cod-fishermen and Alaskan sea-otter hunters. The Aleutian Archipelago runs from near the Shumagin group for 1,650 miles, in the direction of Asia, a series of treeless, grassy and generally mountainous islands, with numerous volcanic peaks, rising between the Pacific Ocean and Bering Sea. This region is the home of tremendous gales and almost perpetual sea-mists, and has a mild and humid climate, averaging 50° in summer and 30° in winter. Summer lasts from April to October, and a more rainy than snowy winter the rest of the year. At Unalashka and Kadiak the thermometer rarely reaches as low as zero, and in summer it mounts to 75°. Fewer than half the days are entirely cloudy. A dense and luxuriant growth of grass rustles in the valleys, and may give rise to sheep-raising industries in the future; and innumerable huckleberries grow on the island hills and plains. Many of the Aleutian Islands lie south of the latitude of Liverpool, and have a climate not greatly different from that of northern England. The Aleuts are short, yellowish-brown, Japanese-looking people, with large mouths, flat noses, high cheek-bones, small eyes, and coarse black hair. They are exceedingly religious, after the manner of the Greek Church, being in many cases moderately well-educated, and ranking creditably as traders and accountants. Some of them dwell in their own comfortable houses, with American furniture and tableware; and their women earnestly copy New-York fashion-plates. There are 1,000 Aleuts and 500 Creoles on Atka, Umnak, Unalashka and Spirkin Islands; at the great trading-station of Belkoffski; and at Unga, famous for its hunters of sea-otter.



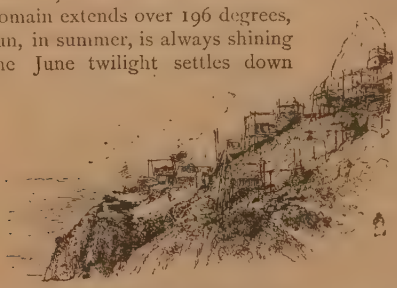
ATTU ISLAND.



CAPE PRINCE-OF-WALES.

The most westerly point of the United States is the island of Attu, 3,084 feet high, 400 miles from Kamchatka, and 400 miles from the nearest Alaskan village. Here dwell five-score of vigorous and enterprising Aleuts, who (although very poor) have resisted advantageous offers to leave their lonely island-home. Their beach-side hamlet has a chapel and a

store. Blue foxes roam over the hills; and wild geese, sea-lions, cod and halibut abound near by. San Francisco lies 2,900 miles west of Maine, in a bee line, and 2,943 miles east of Attu, and is therefore a little east of the centre of the Union. Since the American domain extends over 196 degrees, or more than half way round the earth, the sun, in summer, is always shining on the United States somewhere. When the June twilight settles down over the gray-green wastes of Bering Sea, and the weary Aleut fisherman pulls his canoe toward the shore, the morning light is already streaming far out over Maine, and the axes of the lumbermen are arousing the echoes of the Penobscot forests.



KING ISLAND, BERING SEA.

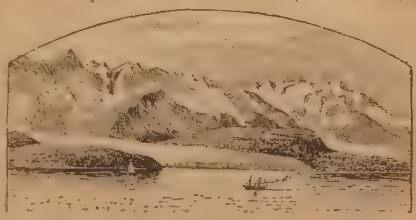
Bering Strait is forty miles wide, 1,000 miles north of Attu, between Cape Prince-of-Wales, on the American side, and East Cape, on the Asiatic shore. It is twenty or thirty fathoms deep, with a current flowing northward into the Arctic Ocean, and another south into Bering Sea, the latter being permanent, the former temporary and tidal. Arrangements have been talked of to send two large steamships every season from American ports to the Arctic Ocean, bearing summer-excursionists. The Strait was traversed in 1648 by Deshneff, and in 1728 by Bering. In 1778 Capt. Cook explored and named it. The Diomede Islands lie in Bering Strait, two miles apart, one of them, Ratmanoff (or Im'ah-khlūk) being Russian, and the other, Krusenstern (or Ing'ah-khlūk), American. They are usually known as the Big and Little Diomedes. The Little Diomede is a bald rock about 250 feet high, with ninety Eskimo inhabitants, always willing to trade walrus-ivory and fox-skins for whiskey and tobacco. Thirty miles away is King Island, fronting the Bering currents with basaltic cliffs 586 feet high, and inhabited by bold Eskimo walrus-hunters and kayak-men, whose homes are built on stages constructed on the steep rocky slopes, one above another, like terraces.

Leaving aside the long Aleutian and Sitkan horns, Alaska may be likened to a huge square, with its sea-bound edges fringed by estuaries, like Bristol Bay and Norton Sound, on Bering Sea, and Kotzebue Sound, opening into the Arctic. It is a land of a short, hot summer, in which all the snow is melted, and a long, cold winter; and upon its river-banks and coast-line there dwell 13,000 Innuits or Eskimo, amid the forever frozen fields where no cereals or fruits can be raised. One-third of Alaska lies within the Arctic Circle, and is nearly all frozen moor or tundra, with mosquito-haunted lakes and marshes, and low mountain-spurs. The Eskimo are taller and stronger than their brethren of Greenland and Labrador, with fresh yellow faces, inclined to mirth. They dwell in bark shanties or cotton tents, in summer; and in winter in huts of logs, entered by underground passages. They eat the meat of moose and whale, seal and walrus, reindeer and bear, wild fowl, and many fish; dress in the skins of animals; and find great comfort in smoking tobacco. These bold sea-hunters and fishermen occupy the entire Alaskan coast from

PERRIER PASS.

ARCTIC OCEAN: POINT BARROW.

Mt. St. Elias around to and along the Arctic Ocean to Greenland, except for the intrusive Tinneh colonies at Cook's Inlet and Copper River. Winter travelling inland is done on sledges drawn by dogs, six of which can transport several hundred pounds thirty miles or more in a day. The Yukon traders often make in this manner journeys of 2,000 miles, during the winter season. In summer all travel is by canoes of skin or bark.

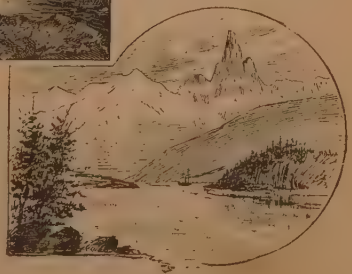

GREAT PACIFIC GLACIER, AT FOOT OF MT. LA PEROUSE.

Millions upon millions of geese and ducks, swans and cranes, herons and swallows, robins and grouse visit the vicinity of Norton Sound every summer, to lay their eggs in the grass of the lowlands. It seems as if all the birds of America sought this desolate land to breed in, to the great delight of the Eskimo, who eat their roasted eggs and tender flesh.

Point Barrow has a building erected by the Government, and for two years occupied by Lieut. Ray as a signal-station. Afterwards, it was maintained by the Pacific Steam Whaling Company, and kept manned as a trading-post, where the whalebone from whales killed by the natives was purchased. In 1889 the United-States Government established a relief station there, the material for the buildings being transported and put up by the revenue-cutter *Bear* and the naval vessel *Thetis*. In 1871, 33 ships were crushed in the ice, and 1,200 sailors became castaways on this sterile coast. In 1876, thirteen vessels were caught in the ice on this coast, and abandoned, and in 1888, five ships were lost at Point Barrow. The Eskimo village of Nuwuk, with 140 inhabitants, lies near the point, which is a low sandy projection near a shallow bay. It is the most northerly point of the United States. Yet here, during a few days in July, buttercups, dandelions and poppies spangle the moors, and golden butterflies float in the chill air.

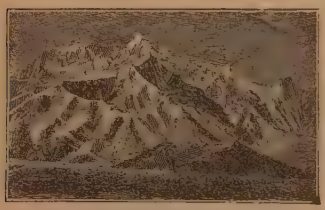
INDIAN RIVER.

The Yukon River is of unknown length (over 2,000 miles), and traders' steam-boats tow batteaux for 1,300 miles up its mighty flood. It has several shallow mouths, with a dreary and water-soaked delta seventy miles wide; and for a thousand miles it varies from one to five miles in width. The water is muddy, and clogs the boilers of the steamers. Blue grass, wild roses and other plants grow on the shores, which are infested by enormous swarms of most formidable and poisonous mosquitoes. St. Michael, a fortified trading post founded by the Russians in 1835, is the metropolis of this region. It lies far north of the Yukon delta, on Norton Sound, but gets all the trade of the great river. People bound for the Yukon first go to this port, whence light-draft steamers run cautiously around into the river, whose mouths are almost closed by leagues of mud.


THE DEVIL'S THUMB.

The short but intensely hot summers of the upper Yukon country produce millions of acres of rich grasses; and barley has ripened at Fort Yukon, inside of the Arctic Circle. The mean temperature of the Yukon country is 25°, and it ranges from 70° below, in winter, to 100° above. These winters of almost interminable length and amazing snows keep the ground in many places frozen to within six to eighteen inches of the

surface all summer. Up as far as the Episcopal mission at Anvik, the Eskimo dwell, along the river; but the Yukon shores above that point belong to the Tinneh, an Athabaskan people, whose fishermen and hunters occupy its shores, and also have log villages along the Kuskokwim and Tananah. It is 800 miles from St. Michael to Nuklakayet, and thence 300 miles to the deserted Fort Yukon, where the river has a width of seven miles, between flat and mosquito-scourged lowlands, with the pale blue Romantzoff Mountains in the northwest. The fort is near the inflowing of the Porcupine River, above which the Canadians call the Yukon the Lewes River. Somewhere near the boundary, 200 miles above the fort, are the gold-fields of the upper Yukon, reached from Haines, or Chilkat Mission, 80 miles northwest of Juneau, by crossing the coast mountains, over the Chilkoot Pass, 4,100 feet high, and descending the Yukon waters from Lake Lindeman. It is 430 miles from Haines to Pelly River; 550 miles to Stewart River; and 670 miles to Forty-Mile Creek. A large number of gold-prospectors have ascended the Chilkat, and crossed to the head-waters of the Yukon, which they followed down to Bering Sea. Several hundred American miners are at work on the upper Yukon, but without severe hardships little gold can be obtained. The boundary line between Alaska and Canada has never been marked, and large areas of territory are in dispute, especially on the upper Yukon. In 1887-8, the Dominion of Canada sent a surveying party, in charge of Dr. G. M. Dawson, to make a preliminary reconnoissance of the boundary line; and in 1889-90, a similar party was sent out by the United States.

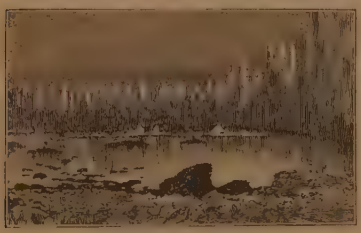


MOUNT ST. ELIAS.

The clay-white and turbid Kuskokwim River is navigable from Bering Sea for 300 of its thousand miles of length. Two hundred miles up is Kolmakoffski, once a Russian trading-post for the 5,000 fish-eating natives of the lower river. The mosquitoes in this region are innumerable. The Colville and an undetermined number of other rivers flow into the Arctic Ocean. Formerly every year a great fair was held on the Colville, visited by the Eskimos for hundreds of miles. But the conditions of trade have now totally changed this and many other ancient usages.

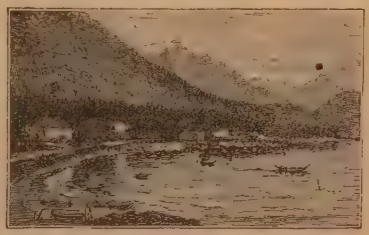
MOUNT WRANGELL.

The Alaskan mountains are northerly extensions of the Cascades and Rockies, and culminate in the majestic St.-Elias Alps, from 14,000 to 20,000 feet high, the greatest mountains north of Mexico; the Chugatch and Kenai ranges, never yet explored; Iliamna, 12,000 feet high, and an active volcano; and the Aleutian peaks, Makushin on Unalashka, Shishaldin (8,000 feet) on Unimak, Korovin on Atka, and many other volcanic spires, rising from the lonely northern sea. The District contains ten active volcanoes, and many that are burnt out or somnolent. This vast line of mountains runs northwest to the Ramparts of the Yukon, and then turns southwest through Aliaska, and is apparently continued by the Aleutian Islands, sinking lower and lower into the ocean as the range advances. Mt. St. Elias reaches a height of 14,000 feet, 45 miles inland from Icy Bay, which is 55 miles from the Indian coast-hamlet of Yakutat, 250 miles northwest of Sitka.



THE MUIR GLACIER.

It crowns a vast wilderness of glaciers (some of them covering a thousand square miles each), black rocky ridges and craters, and solitary lakes, near the huge peaks of Mt. Cook and Mt. Vancouver. Lieut. Schwatka in 1886, and the Topham-Williams party in 1888, both failed, after prodigious efforts, to reach the summit of this lonely peak. Mt. Crillon (15,900 feet) and Mt. Fairweather (15,500 feet) rise with magnificent effect from the sea, west of Glacier Bay. Mt. Wrangell, in the forks of the brawling Copper River, has an estimated height of 19,400 feet, and perpetual smoke pours from its peak. The St.-Elias Alps terminate in the Kenai Peninsula, south and east from the Alaskan Range, beyond which extend vast table-lands. Along the moorlands of the Arctic coast rises a long range of low gray and bronze-colored hills, sinking east of Cape Lisburne into gravelly hillocks. The glaciers of the St.-Elias region are of amazing dimensions, sometimes reaching twenty miles in width of working face. The Muir Glacier, where it meets the sea, is three miles long and 330 feet high, a vast pearly and ultramarine wall of ice, with a background of mountains rising 15,000 feet. The Davidson and other glaciers are famous for their grandeur. In the eighty miles from Juneau to Chilkat, at the head of Lynn Canal, a score of glaciers are visible. There are perhaps 5,000 of them between Dixon Entrance and the tip of Aliaska. In some inlets of this formidable coast the tides rise and fall fifty feet, notably in Cook's Inlet and at the mouth of the Kuskokwim River.

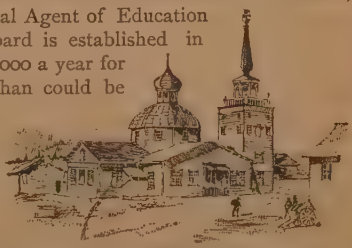


SITKA: INDUSTRIAL TRAINING SCHOOL.

SITKA: RUSSIAN CASTLE.

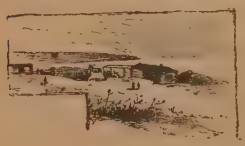
The Government consists of a governor, a district judge, a clerk of the court (who is also secretary and treasurer of Alaska), and a U.-S. district attorney; a collector of customs and five deputies; U.-S. commissioners at Fort Wrangell, Sitka, Juneau and Unalashka; and a marshal and six deputies. The District has no delegate in Congress, and no local legislature, although its remoteness from the States seems to render such political privileges necessary. The National land-laws have not been extended to Alaska, and only 100 acres in the District have legal titles, being by fee-simple holding over from the Russian era. All other estates are retained by the irregular tenure of "squatter sovereignty" on the public domain. The laws of Oregon form the code of Alaska, as far as applicable, and supplemented by Congressional enactments. The executive officers are appointed by the President, the Alaskans having no franchise.

Educational affairs are under the direction of the U.-S. Commissioner of Education, with Rev. Sheldon Jackson, D. D., as U. S. General Agent of Education for Alaska. Wherever possible, a local school-board is established in each settlement. Congress appropriates about $50,000 a year for these schools, which are less efficient in results than could be wished, because the children are not compelled to attend. There are eighteen day-schools wholly supported by the Government, two each at Sitka, Juneau, and Douglas City, and one each at Jackson, Metlakahtla, Klawak, Fort Wrangell, Killisnoo, Haines, Kadiak, Unga, Afognak and Unalashka. In addition to these schools, there are twelve boarding-schools aided by the Government; Anvik and Point Hope (Episcopal); Nulato and Kozyroff, on the Yukon, and Cape Vancouver (Catholic); Unalaklik, on Norton Sound,



SITKA: GREEK CHURCH.

and Yakutat (Lutheran); Bethel, on the Kuskokwim River, and Carmel, on the Nushagak River (Lutheran); Cape Prince-of-Wales (Congregational); and Point Barrow and Sitka (Presbyterian). The Industrial Boarding School at Sitka has 20 teachers and 170 pupils, and teaches shoe-making, carpentering, blacksmithing, and other trades. It is the foremost civilizing agency in Alaska, and serves as a house of refuge and a defence for maltreated native youth.



INDIAN VILLAGE.

The Greek Church in Alaska has a body of conservative priests, supported from the Imperial Synod at Moscow, and governed by Bishop Vladimir, who has established at San Francisco an excellent school for the young Russians and Creoles of Alaska. He has instructed his clergy to learn the English language, for teaching and preaching. This ancient church supports seventeen parochial schools in Alaska. The Jesuits have founded missions and schools on the Yukon; and Catholic institutions exist at Juneau and elsewhere. The Presbyterian Board of Home Missions and the Church Missionary Society of England each support two or more schools and several missions.

SKOOT KALI'S TOTEM.

Mails are carried to Juneau, Sitka, Fort Wrangell, Loring and Killisnoo weekly in summer, and fortnightly in winter; and monthly mails go from Fort Wrangell to Skakan, Klawak and Jackson. Three comfortable steamships run from Tacoma, Port Townsend, Seattle and Victoria, to Fort Wrangell, Juneau and Sitka, most of the voyage being among and inside of the great lonely islands which extend for hundreds of leagues, between the Pacific Ocean and the untrodden glaciers and mountain-ranges of the mainland. There are over ten thousand of these islands between Puget Sound and Mt. St. Elias, partly submerged peaks of the Coast Range, often snow-crowned, and separated by very deep, narrow and protected channels.

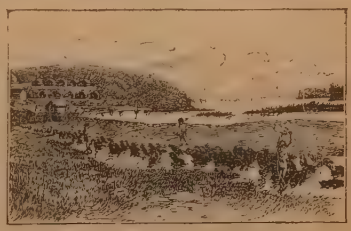
Ivan Petroff, the special agent for Alaska in the censuses of 1880 and 1890, divides the country into seven sections: 1st, or southeastern, from Portland Canal to Mt. St. Elias, about 29,000 square miles, with 1,747 whites, 124 mixed, 4,491 Thlinkets, 952 Tsimpseans, and 391 Hydas; 2d, or Kadiak district, 70,000 square miles, from Mt. St. Elias to Aliaska, with 1,105 whites, 785 mixed, 1,670 Eskimo, 866 Athabaskan, and 246 Thlinket; 3d, or Oonalashka district, including Aliaska and the Aleutian Islands, 15,000 square miles, with 520 whites, 734 mixed, and 967 Aleuts; 4th, or Nushagak district, 318 whites, 28 mixed, 1,952 Eskimo, 43 Athabaskan, and 1 Aleut; 5th, the Kuskokwim district, 24 whites, 17 mixed, 4,998 Eskimo, and 385 Athabaskan; 6th, or Yukon district, with more than 175,000 square miles, and 202 whites, 127 mixed, 2,145 Athabaskans and 1,438 Eskimo; and 7th, or Arctic district, covering the 125,000 square miles between Cape Prince-of-Wales and the Yukon Mountains and the Arctic Ocean, with 2,729 Eskimo inhabitants. The natives are of a stock peculiar to northwest America, from the Columbia to Mt. St. Elias. They are more intelligent and skilful than the Athabaskan Indians, but like them very superstitious, and dangerous when under the influence of hoochinoo, a fiery rum

ALASKANS.

which they distill from molasses. The Chilkat blankets and the fine silver-work and great totems or carved wooden pillars of the tribes, show a notable industrial ingenuity, which may have valuable results, when the hardworking missionaries shall have reclaimed their young people. They are industrious and shrewd, and amazingly ingenious liars, but will not steal from each other. Otherwise, their morals are at a very low ebb. The tribal relation is rapidly giving way, and the chiefs who continue have lost much of their influence; and the coast Indians have generally abandoned the native costumes. There are now no shamans practicing their sorceries, in the tribes nearest the white settlements. The Government has never recognized or treated the Alaskans as Indians, and they are free to come and go, to sue and be sued, and to make contracts, like other citizens. The Alaskans have never been a servile race, and have had few hostilities with the Americans, receiving, also, no Government support. They are fast patterning after the whites, and reaching out to meet the new conditions, laboring in the salmon-canneries and gold-mines; and are both industrious, frugal and ambitious. The 5,000 whites are at Juneau and Sitka and the scattered fishing and mission stations.

SEAL-FISHER'S HUT.

Gov. Stoneman, of California, has said that the gold-mines of Alaska will produce enough treasure to pay the National debt. These rich deposits were first discovered in 1877, at Silver Bay, near Sitka, where valuable quartz-lodes have been worked; and other auriferous outcrops are already located on Admiralty and Unga islands, at Unalashka and elsewhere. In 1880, Joseph Juneau, a French-Canadian miner (and nephew of the founder of Milwaukee) prospected through the region which now bears his name, and found free gold in great quantities in the mountain-girt Silver-Bow Basin. Over $1,000,000 in dust has since been washed out of these placers. Within a league occur the gold-bearing quartz-beds of Sheep's Creek, whose product is shipped to Seattle for refining. Two miles from Juneau is Douglas Island, where John Treadwell established the works of the Alaska Mining and Milling Company. It is said that $600,000 in gold bricks are sent thence to San Francisco yearly, although the ore is of low grade, yielding but $7 to the ton. The quartz is easily quarried from the hill-side, and reduced by one of the largest mills in the world, with 240 stamps, 96 concentrators and 12 crushers. There are large deposits of silver-bearing lead at Sheep's Creek and between Norton Sound and Bering Strait. Copper is found abundantly on Kadiak and at Copper River; bismuth on Mt. Verstovoia; cinnabar on the Kuskokwim; sulphur on Unimak; and elsewhere amber, sulphur, marble, slate, petroleum and kaolin. Lignitic coal is mined on the Shumagin Islands, and appears at Coal Bay and Cook's Inlet.



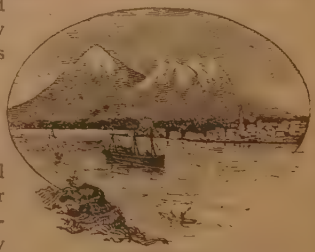
ST.-PAUL ISLAND: DRIVING SEALS.

HAUNTS OF THE SEA LION.

The fisheries are of enormous value. There are fifty San-Francisco and New-Bedford whaling-vessels in the Arctic Ocean, getting $1,500,000 a year in ivory, bone and oil. The salmon pack has risen 30,000,000 pound-cans yearly, besides 15,000 barrels. Prince-of-Wales Island, Cook's Inlet, Bristol Bay and Kadiak each have a score of large salmon-canneries. The Yukon,

Kuskokwim and Nushagak rivers have unlimited supplies of salmon. 350,000 gallons of herring, whale and dogfish oil are made yearly at Killisnoo. 5,000,000 pounds of cod are caught yearly. The yearly fur-yield of Alaska has reached 100,000 fur-seals, 5,000 sea-otters, 10,000 beavers, 12,000 foxes, 20,000 marten, and 15,000 others. The Government has received from the seal islands a sum equal to that which was paid for the Territory. The plant of the Russian-American Company was purchased by San-Francisco capitalists, who were incorporated in 1870, as the Alaska Commercial Company, and leased the Pribiloff Islands for twenty years, with the privilege of killing 100,000 seals yearly. In 1890 the Government granted the right of taking fur-seals to the North-American Commercial Company, for the twenty years up to 1910, for a yearly rental of $60,000, and $7.62½ for each seal-skin (besides $2 revenue-tax). The number of seals to be killed is limited, the first year to be not more than 60,000. The seal islands are visited yearly by steam-ships from San Francisco, 2,300 miles distant. St. Paul's, of 33 square miles, and St. George's, and covering 27 square miles, have beaches, where the seals crawl ashore and breed, and in June and July the allotted number of them are slain, and their skins salted and sent to San Francisco. There are 365 Aleuts on the Pribiloffs, with two Greek churches, English and Russian schools, good American houses, and medical care. 4,000,000 seals visit the Pribiloff Isles every summer; and up to a very recent date the number was not decreasing, owing to the prohibition of killing females, and the precautions taken to slaughter only young bulls. This is the most important sealing-station in the world. 175,000 fur-seals are killed yearly in all parts of the globe, two thirds of which come from the American and Russian islands of Bering Sea, most of the remainder being taken in the sea itself. Grave difficulties arose between the United States and Great Britain in 1889, by reason of American revenue-cutters seizing Canadian sealing-vessels in these waters. These poachers haunt the waters through which the seals pass every spring, where by indiscriminate slaughter, with fire-arms and gill-nets, especially of pregnant cow-seals, they threaten the extinction of the race. Only 21,000 pelts were secured in 1890, by the North American Company.

JUNEAU CITY.



SITKA HARBOR.

Since 1867, the fur-seal skins shipped from Alaska have brought $33,000,000; other furs, chiefly sea-otter, $16,000,000; the canned salmon, $8,000,000 (the largest cannery in the world is at Karluk); codfish, $3,000,000; and gold, $4,000,000.

Juneau, 166 miles north of Sitka, has two newspapers, an opera-house, a library, a brewery, and the Alaska News Company.

Sitka, the capital of Alaska, has a quaint Greek Church, the old Russian Government House, high on a rocky pinnacle, the Alaska Historical Society, and a weekly newspaper. The harbor is deep and dotted with islands, and over it Mounts Verstovoia and Edgecumbe rise far into the sky. Metlakahtla, on Annette Island, is the home of a thousand semi-civilized Indians, transferred by William Duncan from British Columbia. There are good schools, a steam sawmill, and other civilizing influences.

FORT WRANGELL, INDIAN QUARTERS.

HISTORY.

All over the great Territory of Arizona, by the sides of its rivers and on its sun-steeped hills, are the fortresses and cliff-dwellings, the mines and terraces, and the great systems of canals which belonged to the partly civilized people who dwelt here six or eight centuries ago. Frank Cushing estimates that 300,000 persons then occupied the Salt-River Valley alone. The cliff-houses of the Rio de Chelly and the cañons of the Colorado still present their problems to antiquaries, some of whom believe the early Arizonians to have been of the Pueblo stock; while others trace them to the Aztecs. Among these memorials of a vanished race is the Casa Grande, a great adobe ruin, found here by the Spanish explorers of 350 years ago, and still standing in lonely desolation on the tawny plain, viewing the Sonora Mountains. The modern discoverers of Arizona were an Italian Franciscan friar, Fray Marcos de Niza (Mark of Nice), whilom companion of Pizarro in Peru, and Estevanico, a freed African slave. In 1539 these two went northward from Culiacan, "as the Holy Spirit did guide," and reached the Gila Valley. Estevanico was slain by the natives; but Niza planted a cross in Cibola (Zuñi), and took possession of the country in the name of Spain. During the next year, Alarcon navigated the Colorado as far as the Grand Cañon, and Captain-General Coronado, with 300 Spaniards and 800 Indians, marched across Arizona, to the Moqui pueblos and beyond, fighting many a stout battle with the natives. In 1687, and later, Jesuit and Franciscan missionaries did great works in this heathen land, and founded many towns; but the civilization which arose in their train vanished before the forays of the pitiless Apache warriors. The missions were suppressed by the Mexican Government in 1828, and the Indians destroyed again most of the churches and mining plants, and reduced Arizona to savagery. During the Mexican War, in 1847, Gen.

STATISTICS.

Settled near	Tucson.
Settled in	1685
Founded by	Spaniards.
Annexed to the United States,	1848
Territory formed,	1863
Population, in 1870,	9,658
In 1880,	40,440
White,	35,100
Colored (civilized),	5,280
American-born,	24,391
Foreign-born,	16,049
Males,	28,202
Females,	12,238
In 1890 (census),	59,620
Population to the square mile,	0.4
Voting Population,	
Vote for Congress (1890), Dem.,	6,137
Vote for Congress (1890), Rep.,	4,941
Territorial Debt,	$769,000
Assessed Property,	$21,000,000
Area (square miles),	113,020
Delegates to Congress,	1
Militia (Disciplined),	307
Counties,	10
Post-offices,	172
Railroads (miles),	1,097
Manufactures (yearly, in 1880),	$615,655
Operatives,	220
Yearly Wages,	$111,180
Farm Land (acre in 1880),	135,513
Farm-Land Values,	$1,127,946
Farm Products (yearly),	$614,327
Colleges and Professional Schools,	1
School-Population,	10,303
School Attendance,	3,849
Public Libraries,	2
Volumes,	8,000
Newspapers,	34
Latitude,	31° 20′ to 37°
Longitude,	69°53′ to 73°32′
Temperature,	8° to 109°
Mean Temperature (Tucson),	69°

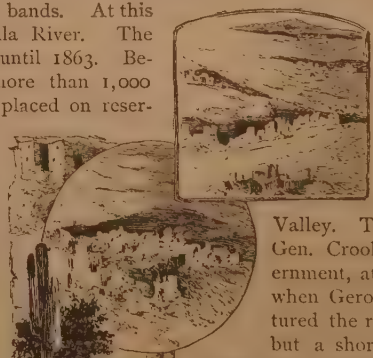
TEN CHIEF PLACES AND THEIR POPULATIONS. (Census of 1890.)

Tucson,	5,150
Phœnix,	3,152
Tombstone,	1,875
Yuma,	1,773
Prescott,	1,759
Bisbee,	1,535
Florence,	1,486
Nogales,	1,194
Flagstaff,	963
Globe,	803

S. W. Kearney marched his command through the Gila Valley, and first brought this country to the notice of Americans. The part north of the Gila was ceded to the United States by Mexico in 1848, and the 40,000 square miles south of the Gila came by the Gadsden Purchase, in 1853, from Mexico, for $10,000,000. Gen. Gadsden made great efforts to have his purchase include Guaymas, but Congress did not support him, and thus Arizona is devoid of a seaport.

CASA GRANDE.

In 1861 the United-States garrisons retreated to New Mexico, evacuating and destroying Forts Buchanan and Breckenridge. The Confederates captured Tucson and threatened Fort Yuma. With Texan raiders on one side, Sonorian plunderers on another, and the murderous Apaches everywhere, the Territory was mercilessly laid waste, and many of its people fled into exile. In May, 1862, Col. Carleton's column of 1800 Californians marched from Los Angeles to Yuma, and entered Arizona, occupying it permanently for the Union, after a few skirmishes with the Texan bands. At this time there were no settlements north of the Gila River. The Territory was not set apart from New Mexico until 1863. Between 1864 and 1876 the Indians massacred more than 1,000 whites in Arizona; but in 1876 the savages were placed on reservations; and in 1878 the railway locomotive crossed the Colorado River, and the era of savagery and isolation came to an end. Yet even as late as 1882-3 the Apaches left their reservations and murdered many citizens of the Gila Valley. They finally took refuge in the Sierra Madre, where Gen. Crook, acting by arrangement with the Mexican Government, attacked them. Another foray occurred in 1885-6, when Geronimo killed 50 persons before Gen. Miles captured the red warriors in the mountains of Sonora. It is but a short time since the most dangerous of the Apache bands were banished to Texas, and subsequently to Florida and Alabama. Yet even in 1891 a number of Arizonians were killed by the Indians. Since the removal of many of the hostile Apaches, and the incoming of the railways, Arizona has grown rapidly. The immigration has been mainly of native-born Americans, from the Western and Southwestern States. Arizona comes from *Arizonac*, the native (Pima) name of a locality near the head of the Rio Altar. Patrick Hamilton says: "Arizona is sometimes called THE SUNSET LAND, and there is no region on the globe that can show such grand effects of light and shade, such gorgeousness of coloring, or such magnificent sunbathed landscapes." It is also known as THE APACHE STATE, from the warrior tribe which for centuries fought the troops of Spain, Mexico and the United States, and murdered thousands of miners, priests and travellers. These Bedouin of the West have destroyed nearly 200 towns and villages



CAVE DWELLINGS.

GOVERNMENT MODEL OF EXTINCT PUEBLO TOWN.

in the Mexican State adjoining Arizona, which is, therefore, sometimes called *Infelix Sonora.*

The Arms of Arizona bear a solitary deer, with pine-trees and a giant cactus, and the San-Francisco Mountains beyond. The motto is DITAT DEUS ("Let God enrich").

CANON DE CHELLY.

The Governors of Arizona have been John N. Goodwin, 1863–5; Richard C. McCormick, 1865–9; A. P. K. Safford, 1869–77; John P. Hoyt (acting), 1877–8; John Charles Fremont, 1879–81; John J. Gosper (acting), 1881–2; Frederick A. Tritle, 1882–5; C. Meyer Zulick, 1885–9; Lewis Wolfley, 1889–90; and J. N. Irwin, 1890–4.

Arizona covers an area equal to that of Italy, or of New-England and New-York combined. The chief features of the scenery are the vast volcanic mesas, or plateaus, from 3,000 to 7,500 feet high, covering the northern half; the deep cañons of the rivers; and the arid plains south of the Gila. It is about 350 miles from New-Mexico, on the east, to California and Nevada on the west; and 400 miles from Utah to Sonora. The mountain-system of Arizona has a general north-western trend, and unites the massive Sierra Madre of Mexico with the descending and intermingled terraces of the Wahsatch Mountains and the Sierra Nevada, which meet near the Grand Cañon. From the illimitable plateau the higher mountains rise in long chains and island-like groups. The well-watered Chiricahuas, 100 miles long, are separated by the Sulphur-Spring Valley (famous for its artesian wells) from the Dragoon range; and farther west lie the Sierra Santa Rita and other ranges, out to where the lone peak of Baboquivari overlooks the land of the Papagos. From these groups high sierras look across the upper Gila valley to the great mass of the Mogollon Mountains, westward of which, in the center of Arizona, opens a great dry upland plain. Then the tremendous volcanic spires of the San-Francisco Mountains, over 12,000 feet high, rise on the eastern front of a labyrinth of 20,000 square miles of peaks and ranges and lonely valleys, extending to the Colorado River. The sovereign summit of these mighty highlands is Mount San Francisco, 12,561 feet high, crowned during more than half the year with shining snows, and visible for more than 200 miles through the clear and rarefied air.

GIANT YUCCA.

North of the Colorado Cañon lies a series of vast uninhabited plateaus, the Sheavwitz, Uinkaret, Kanab, Kaibab and Paria, flat on top and cut by deep gorges, and covered with cones and flows of lava, fragments of forest, and small grassy parks. The desolate Kaibab Plateau is 90 miles long and 35 miles wide, from 7,500 to 9,300 feet above the sea, and bordered by lofty battlements. South of the river rises a long series of forest-clad and cañon-scored plateaus, overlooked by the lonely Red Butte, and stretching away to the huge volcanic cones of the San-Francisco Mountains.

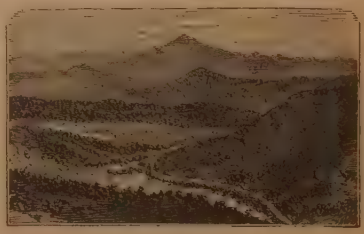
PETRIFIED FOREST.

The most astonishing feature of Arizona scenery is the Colorado River, formed in Utah by the confluence of the Green River, from Fremont's Peak, in the Wind-River Mountains of Wyoming, and the Grand River, from Long's Peak, in the Rocky Mountains of Colorado. The drainage area of this

mighty stream is equal to New-England, the Middle States, Maryland and Virginia; and its channel is 1,100 miles long, from the confluence of the rivers, or 2,000 miles long from the head of Green River. The Colorado separates Arizona from California and Nevada for over 400 miles. The remarkable feature of this stream is its passage through the most stupendous series of chasms in the world, with walls of marble and granite from 1,000 to 6,500 feet high, very precipitous and oftentimes for many leagues perpendicular, sculptured into wildly fantastic forms and brilliantly tinted in deep red and yellow, brown and gray, purple and black. Sometimes these gigantic cliffs fairly overhang the water, and the boatman looking upward can see but a narrow strip of blue sky, apparently resting on the ragged crags. From the rim above, the river may be seen rushing and whitening in the lifeless depths below, but the distance is so great that no sound can be heard. On every side labyrinths of cañons cut into the plateaus, through which the tributary streams plunge over resounding cataracts. The Colorado enters Arizona in the long Glen Cañon, whose walls end at the shining Vermilion Cliffs, near the Paria River. Thence to the Colorado Chiquito, for a course of 65 miles, the water rushes through the Marble Cañon, with pavements and enormous buttressed walls of white and gray, pink and purple marble, indented with shadowy caverns and carved into countless weird monumental forms. From the Colorado Chiquito to the hot desert of broken rocks and naked sands at the Grand Wash extends the Grand Cañon of the Colorado, for a length of 220 miles, with sheer walls from 5,000 to 6,500 feet high; and in this distance the water descends 3,000 feet, by many a white rapid and roaring cataract.

GRAND CANON.

In 1852 the steamboat *Uncle Sam* ascended from the Gulf to Yuma, and two years later the *Gen. Jesup* also reached Yuma. Lieut. Ivers ascended through the Black Cañon in 1858 with the steamboat *Explorer*. From 1872 until the building of the Southern Pacific Railroad, in 1877, ocean steamships ran from San Francisco to the head of the Gulf of California, sending their cargoes up to Yuma on smaller boats. Now the lower part of the river, in Mexico, is rarely traversed by boats, the navigation being up-stream from Yuma (where the railroad crosses) to Castle Dome, Ehrenberg (130 miles from Yuma), Aubrey, Camp Mohave and Hardyville (338 miles from Yuma), and occasionally 153 miles farther up, to Rioville, at the mouth of the Rio Virgen, in Nevada. Two hundred-ton steamers frequently ascend to Rioville, in high water, after cargoes of rock-salt. Most of the freighting is done on barges, towed by small steamers, and traveling only by day, making about fifty miles between dawn and dark. The low water of December and the roaring floods of Spring equally baffle the boatmen, who are perplexed also by the shifting sand-bars.



APACHE PASS.

IN THE GILA VALLEY.

In 1869 Maj. J. W. Powell and nine men descended through the Grand Cañon by boat from Green River, enduring several weeks of amazing peril and hardship; and three members of his company were so daunted by their sufferings that they abandoned the

expedition midway and scaled the cañon walls, only to be killed by the Indians of the plateaus. The Colorado Chiquito flows for nearly 200 miles through appalling gorges, which cut the plateaus into islanded shreds. In the south there are several rivers that die on the plains, like the Santa Cruz, the Hassayampa and the Agua Fria. The Gila is 650 miles long.

MEXICAN WOMEN WASHING.

With its castle domes and thumb buttes and solitary sugar-loaf peaks, and its mesas of bare rock, or beds of ashes, or leagues of yellow and vermilion sands, Arizona abounds in the strange and the wonderful. Chalcedony Park, in Apache County, covers 2,000 acres, amid a vast desert of sandstone and lava, with the fragments of thousands of gigantic pines and cedars, brought here by a flood or glacier, and changed by Nature's chemistry into brilliant chalcedony and other minerals, in exquisite colors. Jasper, sard, carnelian, agate, chysoprase, and amethyst are also found in this petrified forest, from which great quantities of stone have been sent east, to be polished for ornaments. At one point, an agatized tree forms a natural bridge over a wide cañon, and elsewhere the broken sections resemble piles of cart-wheels.

The Tonto Basin has a wonderful natural bridge of limestone, 200 feet high, 400 feet wide, 1,000 feet long, and six feet thick at the top of the arch, where there is a hole through which one can look down on the crystal stream in the bottom of the cañon. The natural wells of Arizona often attain a great depth, with a diameter of many feet. The Montezuma Well, 55 miles northeast of Prescott, is 600 feet across and 100 feet deep, and the Region of a Thousand Wells has many of these natural reservoirs, from 20 to 100 feet across. Many invalids visit the Castle-Creek Hot Springs, near the Bradshaw Mountains; and others find relief at Fuller's Hot Springs, flowing from the magnificent Santa-Catalina Mountains.

TUCSON: WOOD-PEDDLERS.

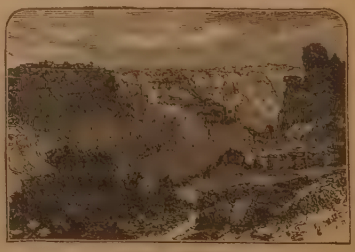
Arizona is a part of the great Mexican plateau, with its pure, dry and electric air, balmy in winter and parching in summer, and the attendant paucity of animal life, and a flora including many fantastic desert growths. The climate varies greatly, from the bracing air and deep winter snows of the north to the amazing heats of the region bordering on Sonora, in some parts of which the temperature passes 100° for 100 consecutive days, and sometimes reaches 112° in the shade. South of the 34th parallel the summers are twelve months long, and snow never falls. This intense fervor is not productive of disease, and sunstrokes are unknown, on account of the extraordinary dryness of the air, which reduces the sensible temperature many degrees. While the lowlands are parched and dry, the mountains abound in rain; and the chief local problem is, how to properly store up this highland water for gradual distribution along the valleys. The warm, dry and balmy air of Arizona is very agreeable to people with pulmonary or catarrhal complaints; and thousands of invalids of this class come hither in the winter months. The rainfall is very small, especially in the south, reaching but seven inches a year at Tucson, and only three inches at Yuma.

FORT BOWIE.

The Agriculture of Arizona depends upon artificial irrigation, by whose aid crops of wheat and alfalfa (clover) are raised, and vegetables of almost every variety. The fruit product includes oranges, lemons, limes, peaches, apples, apricots, figs, dates, olives and a variety of berries. Within ten years upwards of $4,000,000 have been spent on irrigating canals in Arizona. The Territory has 1,000,000 cattle.

TUCSON.

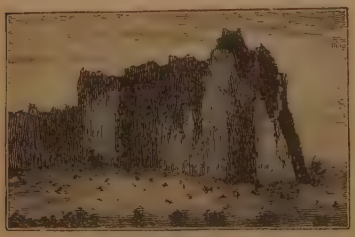
The Mineral Resources of Arizona are enormous, and her leading industries are in mining and smelting, crushing and milling the ores. The modern output of the mines has passed $80,000,000; and their product in the days of Spanish control was very great. The export of silver has reached over $5,000,000 yearly. The treasure-lodes form a baldric crossing Arizona diagonally, for 400 miles, from the southeastern corner to the Black Cañon. The silver veins of Tombstone are large and easily worked, and have produced $33,000,000 worth of treasure since their discovery in 1878. Ed. Schieffelin, being about to depart into the mountains prospecting, told a friend that he hoped to find a mine. "You'll find a tombstone," was the answer; and so the rich mines discovered on the trip, and the city of 6,000 people that rose near them, on a mesa nearly a mile above the sea-level, were called Tombstone — and the local newspaper bears the name of *The Epitaph*. Arizona's exports of copper have reached $4,000,000 in a year. The copper deposits at Clifton are among the richest in the world. The Copper Queen, at Bisbee, runs several large smelters and has made as high as $1,000,000 a year. The Old-Dominion Copper Mines are at Globe, with two 40-ton smelters.



MOQUI PUEBLOS.

Government.—The Governor and executive officers and Supreme-court Judges are appointed by the President; and the people elect members of the biennial Legislature and a Congressional delegate. The Territorial Prison is at Yuma, the Insane Asylum near Phoenix, and the Normal School at Tempe. The Territorial University is at Tucson. Arizona has 24 weekly and eight daily newspapers, several of which are in Spanish.

Phœnix, the capital, is among the vineyards and orange-groves of the mountain-walled Salt-river Valley, in an oasis made by irrigation, with a climate of short and sunny winters and long summers.



INSCRIPTION ROCK.

Tucson is in the Santa-Cruz Valley, with four churches and five newspapers, gas, ice, and water works, a tannery and a smelter, and a large trade with Sonora. Prescott stands at an elevation of 5,700 feet, with a bracing and salubrious climate, and in a region rich in mines and in magnificent mountain-scenery.

Railroads.— The Southern Pacific runs from Deming through the Chiricahua mountains to Tucson and Maricopa, and thence along the Gila to Yuma. The Atlantic & Pacific Railway runs through northern Arizona. At the Needles it crosses the Colorado on a remarkable cantilever bridge, and enters California. Several other minor routes are also in operation.

HISTORY.

The first civilized people to enter the land of the Arkansas Indians were the Spanish men-at-arms of Hernando de Soto, who crossed the Mississippi just below Helena, in 1541, and remained in the country several months. The little army marched into the Boston Mountains, and then turned south across the Arkansas, and followed the Ouachita River into Louisiana. The next European visitor was Marquette, who, in 1673, with Joliet, descended the Mississippi to the Arkansas River and made a map of the region. Hennepin was possibly the next explorer, in 1680. LaSalle in 1682 stopped at the Quapaw Village, at the mouth of the Arkansas, and took possession in the name of Louis XIV., King of France. The first white settlement was made in 1686, at Arkansas Post, by Frenchmen, from a party led by the Chevalier de Tonti. In 1718 John Law obtained a grant of land twelve miles square on the Arkansas River, near the Quapaw Village, which he erected into a Duchy and colonized with a company from Germany and France; but his scheme failed and the settlement was abandoned. In 1763 the Province of Louisiana, including Arkansas, was ceded to Spain, and remained in her possession until 1800, when it again became a French province. At the census of 1798 there were 368 persons in the Command of Arkansas, a district larger than the present State. Arkansas became a part of the United States in 1803, by the purchase of Louisiana, and it was formed, with the lower part of Missouri, into the District of New Madrid. Three years later, the lower part of this District was laid off as the District of Arkansaw. In 1812 Louisiana became a State, and the remainder of the French cession was organized as the Missouri Territory, of which Arkansas formed the eighth county. The Territory of Arkansaw was created in 1819; and General James

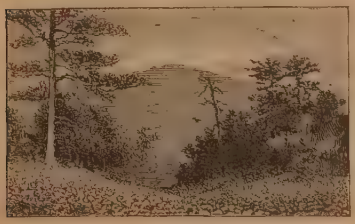
STATISTICS.

Settled at	Arkansas Post
Settled in	1685
Founded by	Frenchmen
Admitted to the United States,	1836
Population in 1860,	435,450
Population in 1870,	484,471
Population in 1880,	802,525
White,	591,531
Colored,	210,666
American-born,	792,175
Foreign-born,	10,350
Males,	416,279
Females,	386,246
Population in 1890,	1,128,179
Population to the square mile,	15.1
Voting Population,	182,977
Vote for Harrison (1888),	58,752
Vote for Cleveland (1888),	85,962
Net State debt,	$13,309
Assessed Valuation of Property,	$172,408,497
Area (square miles),	53,850
U. S. Representatives (in 1893),	6
Militia (disciplined),	2,320
Counties,	76
Post-offices,	1,538
Railroads (miles),	2,213
Manufactures (yearly),	$7,000,000
Operatives,	4,506
Yearly Wages,	$925,358
Farm Land (in acres),	12,061,541
Farm-Land Values,	$74,240,655
Farm Products (yearly),	$45,000,000
Colleges,	4
School-Population,	404,379
School Attendance,	141,500
Public Libraries,	1
Volumes,	20,000
Newspapers,	198
Latitude,	33° to 36° 30′ N.
Longitude,	89°45′ to 94°40′ W.
Temperature,	7½° to 98°
Mean Temperature (Little Rock),	63°

TEN CHIEF PLACES AND THEIR POPULATIONS. (Census of 1890.)

Little Rock,	25,874
Fort Smith,	11,311
Pine Bluff,	9,952
Hot Springs,	8,086
Helena,	5,189
Eureka Springs,	3,706
Texarkana, (Ark. part),	3,528
Fayetteville,	2,942
Camden,	2,571
Arkadelphia,	2,455

Miller of New Hampshire was the first governor, appointed by President Monroe. At this time the Quapaw Indians held the central part of the State, which was obtained from them by treaty in 1824, and partly occupied for several years by the Choctaws. The Cherokee Nation after 1817 held the northwest part (formerly the Osage country), which they gave up in 1828. The first legislature met at Arkansas Post, the capital until 1821, when the seat of government passed to Little Rock. The census of 1820 gave the Territory a population of 14,255. Arkansas became a State in 1836, its first governor being James S. Conway. It then had a population of 47,700.



HOT SPRINGS: HELL'S HALF ACRE.

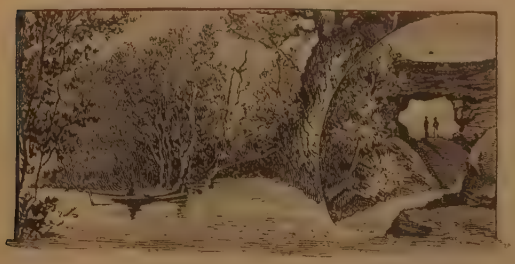
At the outbreak of the Civil War the sentiment of the people was in favor of the Union; but it soon turned, and in May, 1861, an ordinance of secession was passed, and the State was admitted into the Southern Confederacy in the same month. Out of a voting population of 61,198 in 1860, 50,000 enlisted in the Confederate service, while over 13,000 entered the Union service.

The Confederate army of 30,000 men, under Van Dorn, was defeated in a long battle at Pea Ridge (March 6–8, 1862); and Curtis's Union troops marched to Helena. Blunt and Herron defeated Hindman's Confederates at Prairie Grove (December 7, 1862), 1,000 men falling in each army. A few weeks later, a United-States fleet, after a long bombardment, captured the fortress of Arkansas Post and its garrison of 5,000 men. September 10, 1863, Gen. Steele occupied Little Rock, with the Army of Arkansas, and re-established the National authority.

CRESCENT SPRING.

The most disastrous results arose from the guerilla warfare, which was peculiarly favored by the remoteness of this region from the main armies, and the rugged nature of the country. These marauders were despised alike by Union and Confederate troops, and the bitter feelings engendered lasted for many years, and helped make the "Reconstruction days" a dark period in Southwestern history. The State remained under military rule from 1865 until 1868, when a constitution was framed, and Arkansas again became a part of the Union.

In the decade of the great civil war, the advance of the State was retarded greatly, but since the drums ceased to roll along the Arkansas Valley, and especially since the reconstruction troubles passed away, a new era of growth has begun, with a noble progress in order and prosperity. State scrip has advanced in value, and is now at par; the State debt has been reduced, and the county indebtedness adjusted; schools have opened for both races; and immigration and capital have increased, all contributing to an unprecedented growth. The common-school system has been so carefully guarded as to win the plaudit of being among the best in the South. The most stringent and inevitable laws have latterly been made and enforced, against buying, selling or carrying weapons, and this



WHITE RIVER. NATURAL BRIDGE.

dangerous custom has to a great extent passed away. The vice of drunkenness has also been greatly abated by the prohibition laws, which are now enforced in nearly 50 counties. There were 112,000 slaves freed in Arkansas, and one-third of the population is of African descent.

The Name of the State first appeared on Marquette's map in 1673, and belonged to an Indian tribe living on the Mississippi, near the mouth of the Arkansas River. Shea thinks that was a title given by the Algonquins to the Quapaw tribe; and its meaning is not known, the theories that it came from *Arc* (*bow*) *Kansa* (from the strong bows used by these Indians), or from *Arc-en-sang*, being purely fanciful. The name has been doubtfully interpreted as "Bow of Smoky Water." In 1881 it was "Resolved by both houses of the General Assembly: That the only true pronunciation of the name of the State is that received from the native Indians by the French, and committed to writing; and that it should be pronounced with the final *s* silent, the *a* with the Italian sound, and the accent on the first and last syllables — being the pronunciation formerly universal and now still most commonly used." Arkansas is known as THE BEAR STATE, from the number of these animals that once infested her forests. Her people used to be called *Toothpicks*, in playful allusion to the huge bowie-knives carried by the pioneers.

FORESTS.

The Arms of Arkansas (adopted in 1864) consist of a shield, upon which is emblazoned a steamboat, plough, bee-hive, and sheaf of wheat. This is borne on the breast of an eagle, who holds in his talons an olive-branch and a bundle of arrows. There is also an angel, inscribed "Mercy," and a sword, inscribed "Justice." The crest is the Goddess of Liberty, holding a wreath, and a pole with a liberty-cap, and nearly surrounded with radiant stars. The motto is REGNANT POPULI, ("The People Rule").

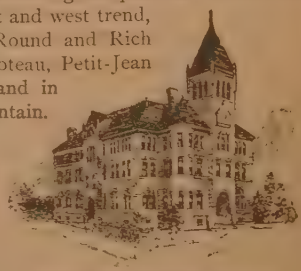
WHITE RIVER: COTTON BOAT.

The Governors have been: *Territorial:* James Miller, 1819–25; Geo. Izard, 1825–9; John Pope, 1829 35; Wm. S. Fulton, 1835–6. *State:* James S. Conway, 1836–40; Archibald Yell, 1840 4; Thomas S. Drew, 1844–9; John S. Roane, 1849 52; John R. Hampton (acting), 1852; Elias N. Conway, 1852–60; Henry M. Rector, 1860–2; Thomas Fletcher (acting), 1862; Harris Flanagin, 1862–4; Isaac Murphy, 1864–8; Powell Clayton, 1868–71; Ozro A. Hadley (acting), 1871–3; Elisha Baxter, 1873–4; Augustus H. Garland, 1874–7; Wm. R. Miller, 1877 81; Thos. J. Churchill, 1881–2; James H. Berry, 1883–5; Simon P. Hughes, 1885–9; James P. Eagle, 1889–93.

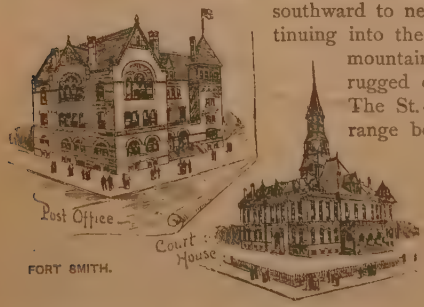
Descriptive.—Arkansas is larger than England, New York, or Virginia; and when settled as thickly as Massachusetts will have 12,000,000 inhabitants. The St.-Louis, Iron-Mountain & Southern Railway divides the State into highlands on the west and north, and lowlands on the east and south. The lowlands have an elevation of 300 feet above the Gulf of Mexico, while the highlands rise in places to 3,000 feet, the eastern portion and the "bottoms" containing the most fertile

FARMING IN ARKANSAS.

lands, best adapted to cotton. Portions of this area, along the large streams, remain subject to overflow, and are therefore not so healthful as the western and northern parts of the State. In the flat region between Little Rock and Memphis are great prairies devoted to grazing. South of the Arkansas the ridges have an east and west trend, and an elevation of 1,000 feet, rising in Polk County (Round and Rich Mountains) to 2,450 and 2,650 feet; in Scott County (Poteau, Petit-Jean and Fourche Mountains), to from 2,450 to 2,850 feet, and in Logan County reaching 2,850 feet, in Magazine Mountain. Toward the east the land falls away until, at Little Rock, the hilly country has an elevation of but 500 feet. The mountainous region south of the Arkansas is adapted to fruit and cattle raising, and produces much cotton and corn. North of the Arkansas and at the eastern end of the highlands the country rises from the alluvial bottoms to the Blue Mountains (the eastern end of the Boston range), in Stone and Searcy counties, reaching an elevation of 1,800 feet. The north face of the Boston Mountains forms a steep escarpment, and the region to the north is here hilly and cut by deep gorges, and there gently undulating and covered by fertile fields. To the west the Boston Mountains broaden out and reach higher elevations, their spurs extending southward to near the Arkansas River, and the range continuing into the Indian Territory. On the south face, the mountains rise here and there in a series of steep and rugged cliffs and terraces to 3,000 feet above tide. The St.-Louis & San-Francisco Railway crosses the range between Fort Smith and Fayetteville, with costly tunnels and galleries. Different sections and spurs of the Boston Mountains have local names. The mountainous region and the area lying north of the Boston range form one of the most remarkable apple-growing districts in the United States. The rich farms of the north are devoted to apples and corn, wheat and clover, and oats. Much cotton is also raised, but agriculture is not so completely given over to it here as it is south of the Boston Mountains. This part of the State is abundantly supplied with the finest springs of clear cold water.



ARKADELPHIA: OUACHITA COLLEGE.



FORT SMITH.

The streams of Arkansas navigable by steamboats aggregate 3,250 miles in length. The Mississippi winds along the eastern border for 408 miles. There are steamboat lines from Little Rock to Memphis, St. Louis, Cincinnati and New Orleans. The chief danger is from snags, but these are torn out of the rivers, by patrolling snag-boats owned and manned by the United-States Government. There are 16 steamboats on the rivers, carrying 60,000 passengers yearly, and 230,000 tons of freight. The Arkansas is a noble stream, 1,600 miles long. After breaking through the Colorado cañons it flows through Kansas and the Indian Territory, augmented by the Canadian (900 miles), the Cimarron (650 miles), and the Neosho (450 miles); and divides Arkansas into nearly equal portions. It is navigable to Little Rock, Fort Smith, and (in high water) Fort Gibson, 462 miles. Grain was brought

FAYETTEVILLE: ARKANSAS INDUSTRIAL UNIVERSITY.

down from Kansas in light-draught steamboats, in 1878. It is 309 miles by river from Fort Gibson to Wichita, Kansas. In January, June, and November disastrous floods sometimes visit this great valley. The White River, 700 miles long, is navigable from the Mississippi up to Batesville, 280 miles; and in spring boats can ascend to Forsythe, Missouri (502 miles). The bottom-lands are rich in cotton, corn and wheat. The Ouachita may be ascended at high water to Arkadelphia, 445 miles; and at other seasons to Camden, 369 miles. Black River is navigable to Poplar Bluff, 311 miles; the St. Francis, to Wittsberg, 135 miles; Red River, for 120 miles; the Saline, to Mount Elba, 125 miles; and Bayou Bartholomew for 175 miles. The rivers and lakes abound in perch and suckers, buffalo and catfish, bass and trout, crappie and salmon, pike and pickerel, and other valuable food-fish.

HOT SPRINGS: U. S. ARMY AND NAVY HOSPITAL.

The world-renowned Hot Springs of Arkansas are 55 miles southwest of Little Rock, and reached by a branch railway from Malvern, on the Iron-Mountain route. The main street lies in the narrow gorge between Hot-Springs Mountain and West Mountain: and has on one side a long line of hotels and stores, and on the other nearly a score of bath-houses, some of which are large and costly brick buildings, with many enamelled porcelain tubs. The little valley is about 600 feet above the sea, and near the Ouachita River, whose vast valley is overlooked from the Government observatory. Ten thousand people come here yearly, to seek benefit from the remarkable curative waters; and a city of 12,000 inhabitants has risen here, with many small villas and cottages occupied by chronic invalids. The springs up on the mountain-side are piped down to the bath-houses, so hot that cold water has to be added in the tubs. Heated vapors rise from the water, and carbonic-acid gas bubbles up through it. Thick layers of tufa have been deposited by the springs. The hot springs along the creek are used for drinking. The waters are beneficial in cases of diseases of the skin, blood and nerves, and for rheumatism and syphilis, but often prove harmful in acute diseases of the heart, lungs and brain. After three weeks of daily bathing, the patient rests for a week, and then takes another three weeks. The medicinal virtue of these waters has been ascribed mainly to their high temperature and their purity. They carry some silica and carbonate of lime, and very small proportions of some other minerals in solution. The 73 springs vary in temperature from 93° to 168°, (hot enough to cook eggs) and pour out daily 500,000 gallons of clear, tasteless and odorless water. The United-States Government owns the springs and a valuable reservation at this Arkansas Bethesda, and has established here a large Army and Navy Hospital, where hundreds of disabled officers and soldiers are sent every year, generally returning to the service cured and fit for duty. The Senate has under discussion a proposition for founding here also an immense hospital for the ailing veterans of the Soldier's Homes.

HOT SPRINGS: CENTRAL AVENUE.

HOT SPRINGS: THE BATH HOUSES.

The Hotel Eastman, the chief of the Hot-Springs hotels, opened in 1890, is a magnificent semi-Moresque structure, practically fire-proof, heated by steam and lighted by electricity, and partly surrounding a pleasant park and grounds. It can entertain 800

guests, and has accommodations as low as $3 a day. All the resources of modern hotel science have been drawn upon to make this great inn as luxurious as possible. The value of the property exceeds half a million dollars. The parlors are grand, and so are the dining-rooms, ordinary and rotunda. For the men there are special parlors and reading-rooms, card-rooms, and the billiard-hall; and the ladies also have their own parlors and reading-room. The 500 guest-rooms are furnished in antique oak and cherry. A short bridge across a street leads to the hotel bath-house, with its eight parlors and forty bath-rooms, abounding in brass and marble and Roman porcelain. Immensely broad verandas look out over the park, and there are broad balconies on the roof. The observatory tower rises like a minaret, 200 feet above the city, and looks out over the mountains and the far-away Ouachita River, flashing along its dreamy valleys. The Eastman is one of the model resorts of the world.

HOT SPRINGS: HOTEL EASTMAN.

Within a few miles of Hot Springs are the Potash Sulphur, Mountain-Valley, Gillen's White-Sulphur and other celebrated springs, each with its hotel and other accommodations. Eureka Springs, founded in 1879, in the White-River Mountains, is now a city and health-resort, visited by invalids suffering from rheumatism, dyspepsia, cancer and Bright's disease. The surrounding country is picturesque, with its high limestone cliffs and deep caverns and mountain-views. Ravenden Springs flow from a high cliff, in the north, cold and clear, and beneficial in cases of dyspepsia. The Searcy Springs are white sulphur, chalybeate and alum. The Electric Springs, near the Frisco Line, and the Indian Springs, near Neosho, are among the other health-resorts of Arkansas.

The Climate of the hill and plateau counties is one of the most temperate in America, being free from the droughts of Southern summers and the rigors of Northern winters. The equability of the temperature has been likened to that of the south of France. Chancellor Eakin pronounced the State, as to climate, "The Italy of America." It is favorable for the relief of bronchial and pulmonary complaints, rheumatism and catarrh. The short open winters are succeeded by long and balmy seasons, kindly to agriculture. The climate of the lowlands, especially in the uncultivated regions, is malarious. The summer mean temperature is from 76° to 80°, rising to 80° and 88° in the southeast; and the winter mean is from 28° to 40°, north of the Boston Mountains, and from 40° to 52° southward. The summer average at Little Rock is 71.5°; the winter average is 48.4°. The average for 20 years at Fort Smith is 60.91°.

LITTLE ROCK: LAND OFFICE ST. L., I. M. & S. R. R.

Farming employs 83 per cent. of the people of Arkansas, which is the most exclusively agricultural State in the Union. It has 100,000 farms, with a larger percentage of products to value of farms than in almost any other State. Among the articles produced yearly are 600,000 bales of cotton, valued at $26,000,000; 900,000 bushels of sweet potatoes; 1,000,000 pounds of tobacco; 42,000,000 bushels of corn, valued at $20,000,000; 2,000,000 bushels of wheat; 5,000,000 bushels of oats; and 25,000 tons of hay. The State also yields molasses and sorghum, honey and wine. Five per cent. of the land is not tillable, and 32 per cent. is in cultivation. The tillable lands are divided into the alluvial plains of the river valleys, the prairie land, and the uplands. The river bottoms are remarkable for fertility. Most of the upland regions have a fertile though thinner soil. The agricultural implements are generally crude, as are the methods of cultivation, especially in the remote districts. Marked improvements,

however, have been made in this line in the last few years by the introduction of improved machinery and a more thorough system of cultivation. The hilly and mountainous northwestern region is admirably adapted to fruit-growing. Apples as fine as any in the Union are raised here, and peaches are an almost spontaneous crop, while grapes, cherries and other small fruits flourish. It is only in recent years fruit-culture has received much attention, and this promises soon to be one of the most productive fruit-regions in the country.

There are about 30,000 square miles of timber land in Arkansas, the most abundant being the yellow pine, which is commonly sold in northern markets under the name of "Georgia pine." There are 15,000 square miles of pine land. The cypress is found in the swamps of the east and south. Different species of oaks abound, the white oaks being the most numerous and valuable. Yellow poplar occurs in the east, and cedar is abundant in the northern mountains. Other valuable woods are walnut, cherry, sweet gum, hickory, beech, maple, elm and ash. Persimmon, pecan, catalpa, sycamore, buckeye, dogwood, and locust are some of the other common varieties.

ARKANSAS SCHOOL FOR THE BLIND.

From these forests, $20,000,000 worth of lumber is cut yearly, large shipments being made to Europe. The woods are well-stocked with game, the deer and wild turkeys of the Deer Range, beyond Black River, the foxes and deer of the Pine-Bluff country, the bear and deer of the Pennington Forest, the panthers and wolves, bear and deer of the Fort-Smith region. The domestic live-stock is valued at $25,000,000, and includes 320,000 horses and mules, 825,000 cattle, 225,000 sheep and 1,600,000 swine. The winterless years of Arkansas are peculiarly favorable for farmers, since the plough need never be idle. Their fruits and vegetables are the first in the Western markets. The apples raised here have no superiors for beauty and flavor; and grapes and peaches are equally successful in this land of temperate and long-enduring sunshine. Arkansas is fourth among the States in the value of her crops per acre cultivated, being surpassed only by Rhode Island, Massachusetts and Louisiana. There are United-States land offices at Little Rock and Dardanelle, Camden and Harrison. Large areas of land are still open, 5,000,000 acres of United-States domain standing ready for grants to actual settlers. The State has 2,000,000 acres; and the railroads also hold enormous tracts of land-grants, ready for sale at low prices and on easy terms of payment.

LITTLE ROCK: STATE INSANE ASYLUM.

LITTLE ROCK: DEAF-MUTE INSTITUTE.

In 1853 Congress granted a vast area of land to the St.-Louis, Iron-Mountain & Southern Railway; and after the Secession storm, this grant was confirmed, in 1866. On these millions of acres, stretching like a baldric from northeastern to southwestern Arkansas, the railroad has settled a great number of farmers, selling their lands at low prices, and on long time. The climate is favorable for agricultural pursuits, with a season of cultivation extending from February to November; and the fertile soil offers unusual inducements to immigrants. Another great tract of 800,000 acres now open to settlement pertains to the Little-Rock & Fort-Smith Railroad, whose line it follows up the beautiful and broad Arkansas Valley, productive of cotton and oats, corn and wheat, and the best of fruits and vegetables. This rich belt lies between the Magazine Mountains

on the south, and the Boston Mountains on the north, in the heart of the State, and is fast developing into a populous and prosperous farming region. The land offices of these companies are at Little Rock, under the superintendence of Col. Thomas Essex.

LITTLE ROCK: FIRST NATIONAL BANK.

The Finances of Arkansas were seriously affected by the profligate expenditures of the carpet-bag governments during the Reconstruction era, and in 1874 Gov. Garland found the treasury empty, and a great public debt outstanding. The rising tide of prosperity throughout the State has swept away this unfortunate condition of finance, and brought in a securer and happier condition of affairs. The entire debt, outside of that owed to the United States, will be retired in a few years. The oldest incorporated bank in Arkansas is the First National Bank, whose building at Little Rock is the finest for the purpose within the borders of the State. The First National Bank is under the presidency of H. G. Allis, one of the foremost public men of the State, and a firm supporter of every wise enterprise. The institution has grown with the growth of the community, and now has a capital of $500,000, with a surplus fund and undivided profits exceeding $100,000, and resources of $1,750,000.

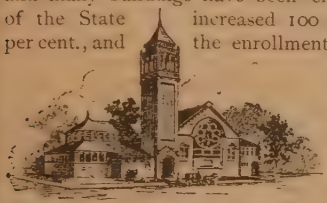
Minerals.—A geological reconnaissance of the State was begun in 1858–9, under Dr. David Dale Owen, and resumed in 1887, when a complete geological survey was undertaken under the direction of Dr. John C. Branner. This survey has shown that the chief minerals are coal, lignite, manganese, marble, limestone, granite and other building stones, Mexican onyx, novaculites, aluminum ore, gypsum, chalk, fertilizing marls, saline and mineral waters, china and pottery clay. Slate has been quarried; and the iron ore of Lawrence County was once utilized. Zinc occurs in the north, and antimony is mined in Sevier County. A copper-mine has been opened in Searcy County; and steatite is found in Saline County. The gray, pink and variegated Arkansas marble is of the same character as the Tennessee marble, and occurs in great quantity and in good condition for quarrying. No marble industry has been attempted here. The manganese region is one of the most productive and valuable in North America, the ore being especially adapted to the manufacture of Bessemer steel. The blue granites cover twelve square miles, and the stone is remarkably beautiful and strong, being well adapted to architectural work, as well as for paving. The novaculites (or whetstone rocks) are found only in this State, where they cover a large area, in Hot-Spring, Garland, Montgomery and Polk counties. The finer whetstones used by dentists, jewelers and engravers, and all our razor-hones, come from this region. Chalk, such as that used in Europe in making Portland cement, occurs in Little-River County, while the finest of plastic, refractory and alum clays abound in the centre and south. The coal is especially valuable, and available for many uses. Some is bituminous and some semi-anthracite. It occurs in workable quantities in eight of the western counties. The coal industry is being rapidly developed. The total product for 1887 was 129,600 tons, while that for 1888 was 276,871 tons. Lignite abounds in the south, especially about Camden. The distribution of Arkansas minerals is given in detail in the reports of the Geological Survey.

LITTLE ROCK: BOARD OF TRADE.

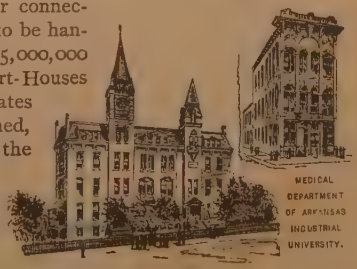
Government.—The governor is elected every two years. The Legislature meets biennially. There are 32 senators and 92 representatives. The Judiciary is composed of the Supreme Court, with five justices; the chancery court; and 16 circuit courts. The Eastern District United-States Court sits at Little Rock; the Western District, at Fort Smith. The State

House is a small classic building, with wings, looking down on the Arkansas River, at Little Rock. It was founded in 1833. At Little Rock stands a monument, erected by legislative order, to commemorate the public services of Ambrose H. Sevier, delegate of Arkansas in Congress from 1827 to 1836, and United-States Senator from 1837 until 1848. The State Insane Asylum, Deaf-Mute Institute, and School for the Blind are on the beautiful pine-hills south and west of Little Rock, viewing the city, the river, and the distant mountains. Here also is the State Penitentiary, whose 600 convicts are managed on the lease system, in convict-camps, except about 75, who remain in the prison.

Education.—Arkansas is paying more for free-school education, in proportion to its taxable property, than any other State. One million dollars is spent yearly for schools, and many buildings have been erected recently. Between 1874 and 1890 the property of the State increased 100 per cent., but the school-appropriations increased 2400 per cent., and the enrollment of school-children rose from 59,000 to 205,000. The Arkansas Industrial University, founded in 1868, with the United-States land grant of 1862, has 30 instructors, and 85 students (of both sexes) in the regular college course, and 348 in the preparatory departments. Provision is made for 1,000 beneficiary students, to be sent from the various counties, in proportion to their population, with appointments from the county judges. The courses are engineering, classical, agricultural and normal, with manual training shops. The young men are uniformed, and form a battalion, commanded by a United-States Army officer. The University buildings are spacious and modern, on a breezy plateau near Fayetteville, in northwestern Arkansas, and overlooking the picturesque Boston Mountains. The Branch Normal College is a department of the University, established in 1875 at Pine Bluff, with several buildings in a twenty-acre park. It has about 180 students. The medical department of the University began its career in 1879, in Little Rock, and has 70 students. At Little Rock, also, are the Little-Rock University (Methodist), Philander-Smith College (for colored people) and the Arkansas Female College, occupying the former residence of Gen. Albert Pike, the poet and author. Cane-Hill College is at Boonsboro, and Hendrix College is at Conway. Among other institutions are Ouachita College (Baptist) at Arkadelphia, with 250 students; and the colleges at Batesville (Presbyterian), Judsonia, Searcy, Morrilton, Altus and other towns.


LITTLE ROCK: FIRST BAPTIST CHURCH.

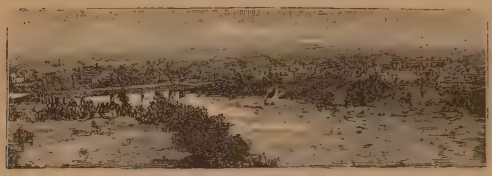
Chief Cities.—Little Rock, the capital and chief commercial city, is near the centre of the State, on the broad and noble Arkansas River, which here winds through a rich rolling country. A little rock near the shore here was the first bit of stone to be seen on the western bank from the Mississippi to this point, and so the old *voyageurs* called the place for this landmark. It is a healthy, handsome and high-placed city, with broad granite-paved and electric-lighted streets, lined with fragrant magnolias and traversed by horse-cars, a spacious wharfage for the packet-steamers, and 30 churches. The city has an active Board of Trade, and by its various railway and river connections receives 70,000 bales of cotton every season, to be handled in its compresses. The local trade reaches $25,000,000 a year. The United-States and Pulaski-County Court-Houses are handsome and costly buildings. The United-States Arsenal, where two companies of artillery are stationed, is celebrated for its noble old trees, and has one of the finest parade-grounds in America. Fort Smith, on the upper Arkansas, has four newspapers and 16 churches, with several railways. At the old frontier-post on this site Gens. Taylor, Hancock and Arbuckle were stationed. Helena is a railway terminus



LITTLE-ROCK UNIVERSITY.

and shiretown, on the Mississippi River, and has some manufacturing, and large shipping interests. Pine Bluff is an important cotton port, on the Arkansas, with many negroes.

The Railroads of Arkansas had but 85 miles of track in 1860, from Memphis to Madison, and from Little Rock to Duvall's Bluff. The St.-Louis, Iron-Mountain & Southern Railway owns upwards of 800 miles of track in Arkansas, running from the Missouri line (at Moark) to Texarkana, diagonally across the State (303½ miles); with minor lines from Knobel to Helena, 140 miles; from Bald Knob to Memphis, 93; and to Warren, Nashville, Hot Springs, Camden and Batesville. The same company (the Missouri-Pacific system) also controls the great route running southeastward across the State from Fort Smith to Little Rock and Arkansas City. The St.-Louis, Arkansas & Texas Railway, the "Cotton-Belt Route," runs from opposite Cairo through Pine Bluff and Camden to Texarkana (and Waco, Texas), with several branches, and 417 miles of line in Arkansas. The St. Louis & San-Francisco Railroad, from Seligman to Fort Smith, has a large trade in the northwestern counties; and the Kansas-City, Fort-Scott & Gulf Line runs from Mammoth Springs to Memphis. Lines are being built from Little Rock to Fayetteville, to Clarendon, to Hot Springs, to Alexandria, La., to Salem, Mo., and to Fort Smith, south of the Arkansas River.



LITTLE ROCK: ARKANSAS RIVER.

The Manufactures of Arkansas are small, as compared with the quantities of raw material found within her borders. Her coal, lumber, clays, marble, chalk, building stone, whetstone, manganese and cotton, will undoubtedly cause the manufacturing interests to increase in the future. In 1880 there were in Arkansas 1,202 manufacturing establishments employing about 5,000 hands, and a capital of $3,000,000. In 1887 the number of factories had increased to 2,400, employing 16,000 hands and capitalized at $58,000,000. Flour and lumber mills employ the great bulk of this investment.

LITTLE ROCK: COURT-HOUSE.

"We know that Arkansas abounds in all the material elements of wealth and greatness; that she has over 2,000,000 acres of State lands to be donated to actual settlers, and that there are within her borders 5,000,000 acres of public lands of the United States subject to homestead entry, to be had in 160-acre tracts at a cost of not over twenty dollars per tract. That many of these lands have gathered fertility from the repose of centuries; that the climate of Arkansas is equable, genial and healthful, and free from extremes of heat and cold. We know that these lands will produce fine Indian corn, wheat, oats, clover and other grasses, vegetables and melons, berries and small fruit in rich abundance, not to mention cotton, in which we excel every other State in the quantity grown per acre and the quality of the fibre; or apples, in the excellence, beauty, flavor and value of which we have excelled in all competition at New Orleans, Louisville, St. Louis, and Boston at the meeting of the American Pomological Society in 1886. We are rich in timber, having 30,000 square miles of grand forests of the most valuable varieties; rich in minerals, having over 12,000 square miles of coal fields, an abundance of iron, manganese, zinc, copper, marble, granite, limestone, lithograph and soapstone."—GOV. SIMON P. HUGHES.

LITTLE ROCK: POST-OFFICE AND CUSTOM-HOUSE.

HISTORY.

In 1534 the Spanish officers Mendoza and Grijalva discovered Lower California, and the Gulf was explored by Cortez. In 1542 Cabrillo followed the Pacific coast up to Cape Mendocino, which he named in honor of the Viceroy of New Spain, Mendoza; and in 1579 Sir Francis Drake went even farther north, in the *Golden Hind*, and called the country *New Albion*. In 1602 Vizcaino discovered the harbors of San Diego and Monterey, "a narrow strip of sea-board with green and grizzly mountains for a background, all opening toward the sun-waves." Lower California was occupied by Jesuit stations from 1697 to 1767, when King Charles III. replaced them with Franciscans. When these also were supplanted by the Dominicans, they withdrew to Upper California, and erected more than a score of paternal missions among the Indians. The founder of Catholic California was Father Junípero Serra, who established the mission of San Diego, in 1769. The heroic priests gathered in and Christianized the naked savages, teaching them to plant vineyards and orchards, build houses and churches, weave cloth and work in metals. In 1784 Junípero died, after fifty-four years of priesthood, and was buried in the Mission Church of San Carlos, in the Carmelo Valley.

In 1770 Junípero founded the mission of San Carlos, afterwards in the sea-viewing flowery Carmelo Valley, near Monterey; and San Carlos Borromeo, close to the beach at Monterey. San Antonio de Padua, with estates 150 miles around, in the Sierra Santa-Lucia, was founded in 1771, a few weeks before San Gabriel Arcángel arose, among the orange-groves and vineyards near Los Angeles, to become the richest of the missions. San Luis Obispo de Tolosa was established in 1772, by Fra Junípero, and grew very wealthy from its vast fields along the ocean. In the summer of 1776, when the Americans on the other side of the continent were at bayonet-push with

STATISTICS.

Settled at	San Diego
Settled in	1769
Founded by	Spaniards.
Admitted to the U. S.,	1850
Population in 1850,	92,597
In 1860,	379,994
In 1870,	560,247
In 1880,	864,604
White,	767,181
Colored,	97,513
American-born,	571,820
Foreign-born,	292,874
Males,	518,176
Females,	346,518
In 1890 (census),	1,208,130
Population to the square mile,	5.5
Voting Population,	
Vote for Harrison (1888),	124,816
Vote for Cleveland (1888),	117,729
Net State Debt,	0
Assessed Valuation of Property (1890),	$1,071,000,000
Area (square miles),	158,360
U. S. Representatives (1893),	7
Militia (Disciplined),	4,394
Counties,	53
Post-offices,	1,403
Railroads (miles),	4,356
Manufactures (yearly),	$116,227,973
Operatives,	43,799
Yearly Wages,	$21,070,585
Farm Land (acres, in 1880)	16,593,742
Farm-Land Values,	$262,051,282
Colleges and Profes'nal Schools,	13
School-Population,	275,302
School-Attendance,	143,733
Public Libraries,	16
Volumes,	553,000
Newspapers,	568
Latitude,	32°28′ to 42° N.
Longitude,	114°30′ to 124°45′ W.
Temperature,	26° to 112°
Mean Temperature (San Francisco),	55°

TEN CHIEF CITIES AND THEIR POPULATIONS (Census of 1890.)

San Francisco,	298,997
Los Angeles,	50,395
Oakland,	48,682
Sacramento,	26,386
San Jose,	18,060
San Diego,	16,159
Stockton,	14,424
Alameda,	11,165
Fresno,	10,818
Vallejo,	6,343

MONTEREY: OLD MISSION.

England's armies, the Mission de los Dolores de Nuestro Padre San Francisco de Asis came into existence, on the site of the present metropolis of the Pacific. Junípero also occupied the lovely valley south of the Bay, with the mission of Santa Clara de Assis, "virgin, abbess and matriarch," which in time had a magnificent church, with rich silver, and 170,000 head of live-stock. San Juan Capistrano owned 45 miles of sea-front, and the groves and grain-fields extending back to the mountains. San Buena Ventura, established in 1782, held 1,500 square miles of rich land on the Santa-Barbara Channel. Twenty-seven miles northward, the friars in 1786 founded the mission of Santa Barbara, famous for its sweet Spanish bells and rich gardens. La Purisima began in 1787, in the Coast Range, and was renowned for its swift and beautiful horses. Nuestra Señora de la Soledad (1791) occupied the great plain Llano del Rey, 45 miles southeast of Monterey, and had an aqueduct five leagues long. Santa Cruz (1791) stood on the sea-ward rim of the valley in which the present city nestles. Its venerable church is now a stable. San Juan Bautista (1794), 30 miles northeast of Monterey, was secularized 40 years later, having acquired great wealth. San Fernando Rey (1797) produced fine brandy, on the plain north of San Gabriel. San Miguel, on the Salinas, dates from the same year. San José (1797), 15 miles north of the present city, was famous for its grain, which the Russians on the northern coast bought. It had a church, watching over 3,000 Indians. The great quadrangle of San Luis Rey de Francia was built by Father Peyri in 1798. Santa Inés (1804), 40 miles north of Santa Barbara, was renowned for vast herds, and its property had a value of $800,000. San Rafael (1817) and San Francisco de Solano (1823) were the latest stations founded, and the only ones north of the Bay. There were Spanish military posts at San Diego, Monterey, San Francisco and Santa Barbara, each with 70 soldiers and a few cannon, for the defence of the missions and pueblos against heathen Indians. For over half a century the calm life of these patriarchal monks and their obedient catechumens passed on almost without a ripple. By 1803 the 18 missions had 15,562 Indian converts; and in 1831, the 21 missions had 18,683 converts, there being about 80,000 other Indians in California. After Mexico became independent of Spain, in 1822, her statesmen by degrees secularized the Californias, and in 1840 the missions were broken up. The ruins of their massive churches and cloisters, in simple and harmonious architecture, will remain for centuries as memorials of the friars who designed them, and the Indians who erected their noble pillars and arches. When their clergy had been driven away, the Mission Indians were stripped of their lands by incoming settlers, and gradually fell a prey to the vices of civilization. California now has 10,000 taxable Indians, and 5,000 more on reservations.

MONTEREY: OLD CUSTOM HOUSE.

SANTA BARBARA MISSION.

At first a department of Spain, California in 1776 became one of the "Internal Provinces," and later a part of the Western Province, whose capital was at Chihuahua or Arispe. Afterwards it received an administration of its own, with Monterey as the capital; and here Gov. Pablo Vicente de Sola and the military and ecclesiastical heads assembled in 1822, and resolved that California should no longer be a Spanish province, but should cast her lot with Mexico. Two years later, she followed Mexico in the change to a

republican government, and became a Mexican Territory, ruled by a Political Chief or Territorial Deputation. The only trade between California and the outside world was monopolized for many years by Boston, whose ships made two-years' voyages hither, laden with notions, groceries and cotton-goods, and returning with furs, hides and tallow. It was their custom to coast along from port to port, as shown in Dana's *Two Years Before the Mast.* The New-England whaling-ships also frequented these ports, and many of their sailors settled on ranches, with native wives.

MEXICAN BOUNDARY MONUMENT.

About the year 1845 there were a few adventurous Anglo-Saxons on the coast, and west of the Sierra Nevada perhaps 300 American trappers and pioneers. It was believed that England and France coveted the Pacific slope, but the American Government (in constant communication with Consul Larkin) believed that the Californians would peacefully join the United States. In 1846 young Capt. Fremont, U. S. A., and Kit Carson reached California overland, on a scientific expedition, with sixty-two men, and were driven into Oregon by Gen. Castro. A few Americans north of San-Francisco Bay, ignorant of Larkin's negotiations, and stirred up by false rumors that they were to be attacked by the Californians, rebelled against the Mexican Government, and hoisted the famous Bear Flag (now preserved by the Pioneer Society), showing a bear on a white ground, with the words CALIFORNIA REPUBLIC. Fremont, who always claimed that he was obeying instructions received from the United-States Government, headed a battalion of riflemen at Sutter's Fort; advanced to Sonoma, which had already been captured by the American insurgents, with its sixteen cannon; spiked the ten guns of the San-Francisco presidio; and started with 160 mounted rifles in pursuit of Gen. Castro. The plans of Larkin and Gen. Vallejo, looking to a peaceful cession, now ended. July 7th, 1846, the American frigate *Savannah* captured Monterey, and Com. Sloat proclaimed California to be a part of the United States; and July 8th, the *Portsmouth* raised the Stars and Stripes at San Francisco. The *Congress* captured Santa Barbara; and Stockton drove Castro from Los Angeles into Sonora. But the South soon rose, under Gen. Flores; recaptured its towns; and defeated Kearney, then nearing San Diego after marching across the continent from St. Louis. Several sharp battles were fought before this rising was quelled. Meantime, the Mormon Battalion, Stevenson's New-York volunteers, and other commands had entered California, and made it secure.

COLOMA: MARSHALL STATUE.

After the cession of this region to the United States, by the treaty of 1848, bitter debates ensued in Congress, as to the introduction of slavery, amid which the people assembled (September, 1849) and framed a constitution excluding slavery, and under this document California was admitted as a State, in 1850. It had already won the name of *El Dorado.* January 24, 1848, a piece of native gold was found by Marshall at Coloma. California's dreamy pastoral life was over; and by the close of the year miners assailed the foot-hills, from the Tuolumne to the Feather River. During 1849, 100,000 men from the East crossed the plains or the isthmus of Panama, or rounded Cape Horn, to seek the land of gold. Between 1850 and 1853, $65,000,000 of gold was mined each year; and from 60,000 to 100,000 men remained at work, at first along the rivers, whose gravelly beds and bars abounded in the precious yellow metal, and after 1851 in the hydraulic mining of the high gravels. The adventurers and free outlaws of the whole world flocked to the new Eldorado, and wild speculation, gambling, robbery, murder and other evil things were practiced by experts, and hardly

SANTA CRUZ: MISSION CHURCH.

SAN FRANCISCO: MISSION DOLORES.

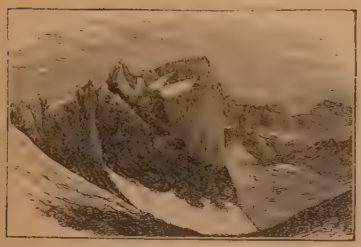
hindered by law. The lynch law of the mines culminated in the famous Vigilance Committee. May 14, 1856, an ex-convict and politician, James P. Casey, shot down in a San-Francisco street James King of William, and five days later 24 companies of the Vigilance Committee took the murderer from prison, and tried and hung him, together with Cora, another malefactor. Gov. Johnson proclaimed San Francisco to be in insurrection. After inflicting condign punishment on several bold criminals, and banishing and frightening others to foreign lands, the Vigilance Committee disbanded, August 18, 1856, making a solemn final parade of 5,137 armed and disciplined troops, with 3 batteries, 290 dragoons, and 33 companies of infantry. The overland mail began to run in 1858, and crossed from Placerville to Atchison in 19 days. The pony mail commenced its trips in 1860.

When the late civil war broke out California had a Democratic governor, legislature, and Congressional delegation, and Albert Sidney Johnston commanded the Military Department of the Pacific. Her senators had said that if civil war came, California would side with the South, or set up for herself. But the loyalty of the people to the United States, then so far away and so shattered, was quickly announced in vast and enthusiastic assemblies, addressed by patriotic orators. Loyal leagues rose all over the State and the few Southern sympathizers departed, or were consigned to the fortress of Alcatraz. The United States declined California's aid, mainly on account of her remoteness, but she raised seven regiments in 1861, sending part of them East by steamship, and using others to garrison the forts along the Pacific. At one time, the State forwarded $700,000 in gold to the Sanitary Commission. Chinamen have poured into California ever since 1850, and between 1852 and 1888 335,000 Asiatics arrived. The prohibition placed by the United-States Government upon this immigration by sea, drove it through British Columbia and Mexico, and greatly reduced its volume. There are now 25,000 Chinamen in San Francisco alone, with six joss-houses, two theatres, and other strange Oriental features. The progress of California since the war has been marvellous, and challenges the attention of the nation. Yet it has not been without reverses. The mining-stocks listed in 1875 at $282,000,000 dropped within six years to $17,000,000. Consolidated Virginia fell from $75,000,000 to $1,000,000 and "California" from $84,000,000 to $351,000.

A CALIFORNIAN ROAD.

In 1886 the "land boom" began in Southern California, where hundreds of towns were laid out and built, sometimes on desolate mesas or along the verge of the desert. While the tide ran full, millions of Eastern capital and thousands of immigrants came to the Pacific shores, and then the excessive inflation broke. There are now sixty towns in Los-Angeles County alone, with 79,350 town-lots, and an aggregate of 2,351 inhabitants. But during this speculative period, great improvements were made, and there can be little doubt that a healthier condition of the real-estate market will repopulate the deserted villages and re-fill the closed hotels. Recently there has been some talk among politicians and journalists of erecting a new State called Southern California. But El Dorado has a State pride rivalling those of

MONO PLAIN.



MOUNT WHITNEY.

Massachusetts and Virginia, and its people will repulse any effort at dismembering the Commonwealth, which is the largest in the Republic, except Texas.

The Name of this great State was the invention of a Spanish novelist, who in *Las Serguas de Esplandian* (published in 1510) made mention of "the great island of California, where an abundance of gold and precious stones is found." Fanciful philologists have derived the meaning of the word from the Spanish *calida fornax*, or *caliente fornaza*, meaning "a hot furnace," and very applicable to Lower California. The pet names, THE LAND OF GOLD, THE GOLDEN STATE and ELDORADO are of obvious origin.

The State Seal represents Minerva, who sprung full-grown from the brain of Jupiter, as California entered the Union as a State, without Territorial probation. She is seated on a rock, with helmet and corselet, shield and spear. At her feet crouches a grizzly bear; and beyond a miner bends to work, with pick, rocker, and bowl. The Sacramento River widens out, bearing ships, typifying commercial greatness; and in the background the sun appears, and the great Sierra Nevada. The motto is EUREKA, a Greek word meaning "I have found it."

MOUNT SHASTA.

The Governors included ten Spanish Dons, from 1767 to 1822, and twelve Mexicans, from 1822 to 1846. Then followed the era of United-States military governors, Sloat, Stockton, Fremont, Kearney, Mason, and Riley. The governors of the State have been: Peter H. Burnett, 1849–51; John McDougall, 1851–2; John Bigler, 1852–6; J. Neely Johnson, 1856–8; John B. Weller, 1858–60; Milton S. Latham, 1860; John G. Downey, 1860–2; Leland Stanford, 1862–3; Frederick F. Low, 1863–7; Henry H. Haight, 1867–71; Newton Booth, 1871–5; Romualdo Pacheco, 1875; William Irwin, 1875–80; Geo. C. Perkins, 1880–3; George Stoneman, 1883–7; Washington Bartlett, 1887; R. W. Waterman, 1887–91; and H. H. Markham, 1891–5.

Descriptive.—California is 770 miles long, and from 150 to 330 miles wide, with more than double the area of New England. The coast-line equals the distance from Cape Cod to Charleston, S. C. The State fronts along the Pacific coast for over 1,000 miles. North of 40° is a wild and mountainous land, covered with stupendous forests. South of 35° much of the State is an unmitigated desert of arid mountains and sunken plains. Central California, between 35° and 40°, has one third of the State's area. Prof. Whitney divides this region into four equal sections, by lines 55 miles apart. The Pacific is the first line, between which and the second lie the Coast Ranges. The Great Valley is the strip next to the eastward, ending at a line drawn from Visalia to Red Bluff. East of this the Sierra extends to the line drawn from Shasta to Mount Whitney; and then the eastern slope falls away to the Great Basin. The State is traversed by the Sierra Nevada and the Coast Range, which interlock on the north and the south, between which extremes they swing wide apart, and enclose the Great Valley.

YOSEMITE: CATHEDRAL SPIRES.

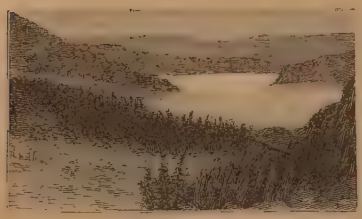
The Sierra Nevada is the most majestic mountain range in

the United States, covering a length of 600 miles, from Mount San Jacinto to Mount Shasta (or 430 miles from the Tahichipi Pass to Lassen's Peak), and a breadth of from 75 to 100 miles, with long and gradual slopes on the west, cut by deep cañons. The most imposing scenery is towards the south, where Mount Whitney and its alpine brethren lift their majestic granite spires. The delightful summer climate of California favors pleasure-travel in the Sierra, where the days are mild and rainless, and the air soft and clear. Thousands of tourists haunt the high valleys and lakes, encamping at great altitudes without discomfort, and unvexed by the wild storms and long rains which visit the Swiss Alps. Prof. Whitney remarks that the Alps would resemble the Sierra if most of their glaciers were melted away. The long grassy slopes leading up to the Swiss glaciers are replaced in California by vast forests, sweeping up to the snow-line. At the headwaters of King's River, the Sierra Nevada forks into two ridges, running southward, and separated by the tremendous Kern-River Cañon. The main peaks of the eastern range are Mounts Kearsarge, Tyndall, Williamson, and Whitney. Those of the western range are Mounts King, Gardner, and Brewer, and Kaweeah Peak. Mount Whitney is the highest peak in the United States, outside of Alaska, and was discovered by Brewer, Hoffman, and Clarence King, in 1864, and named for the State Geologist of California (now Prof. J. D. Whitney, of Harvard University). The first ascent took place in 1873. The height is 14,522 feet (Langley's measurement), 14,887 feet (Clarence King), or 14,898½ (Goodyear).

The main peaks in the central Sierra Nevada pass 13,000 feet in height, and include the lonely Mounts Ritter and Maclure; Mount Lyell's sharp and inaccessible pinnacle of granite, shooting up from a white waste of snow; Mount Starr King, a steep granite cone; Mount Conness, approached by a perilous knife-blade ridge; and Mount Hoffman, fronting the south with amazing granite cliffs. Mount Dana's peak of red and green slate is often visited from Mono Pass, and thence the traveller may look out over hundreds of leagues of granite domes and snowy peaks and volcanic cones, with Mono Lake in the deep valley below.

The Yosemite Valley is 3,950 feet high, on the Sierra, hemmed in by nearly vertical cliffs; and covers 36,011 acres, which Congress granted to California, in 1864, to be held as a State park. The Yosemite Fall descends 2,600 feet in three sections, one of which is of 1,500 feet, vertical. There are also wonderful cascades on the Merced River, which flows through the valley; and the exquisite Bridal-Veil Falls stripe the cliffs near Cathedral Rock with a lace-like white band 900 feet high, swaying, veil-like, in the wind. No words can portray the stupendous rock, El Capitan, a block of bare granite 3,300 feet high, and visible for 50 miles out on the plains; or the fantastic and colossal rock-carvings of the Spires, and the Royal Arches, and Sentinel Rock; or the astonishing Half Dome, with its vertical cliffs 1,500 feet high. This gigantic trough, hollowed a mile deep in the mountains, recessed, buried in woods, jewelled with silvery falls, and overlooked by enormous domes of rock, is one of the grandest of all Nature's temples, with features of sublimity and beauty unequalled by any other mountain-valley in the world. Yosemite is an Indian word, meaning *Grizzly Bear*. The neighboring Hetch-Hetchy Valley has many resemblances to the Yosemite, and heads into the great gorge of the Tuolumne River, which falls 4,650 feet within a score of miles, between cliffs a thousand feet high. The Carson and Johnson Passes, near Lake Tahoe, were the ancient freight-routes to Nevada. From this point for 160 miles south there are but five passes with trails across, two of them being near the head of the San Joaquin, and traversed only by Indians. The Kearsarge Pass, the highest in the State, crosses the great range three leagues north of Mount Tyndall, 12,000 feet above the sea, amid wonderful rock scenery. The Mono Pass, 30 miles east of the Yosemite Valley, and 10,765 feet high, is traversed by many tourists on the way to the ashy volcanic region of Mono Lake, amid lofty snowy peaks, glacier lakes, and falling streams. Bloody Cañon leads eastward from the summit of the pass to the Mono plain. The counties of Mono and Inyo lie between the granite spires of the Sierra Nevada and

YOSEMITE VALLEY GROUP.



DONNER LAKE.

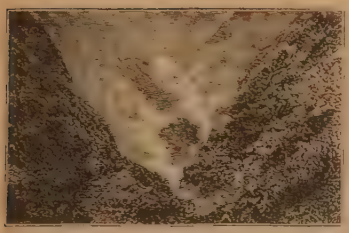
the craggy Inyo Range, each of them rising 10,000 feet above the wonderfully picturesque valley, down which Owen's River flows, to sink in the dead sea of Owen's Lake. Forty miles eastward, across several parallel chains of mountains, and between the Panamint and Amargosa Ranges, the Amargosa River sinks into Death Valley (where a party of immigrants once starved to death), 150 feet below the sea, an alkaline desert in summer, and a mud-flat in winter. The Amargosa and Funeral Mountains lie east of Death Valley. The Inyo Range is lonelier than the Sierra, and forms with the White Mountains a continuous chain of 100 miles long.

As the Sierra goes northward it broadens and loses elevation, and where the Central Pacific Railroad crosses, it sinks to 7,000 feet. Lassen's Peak, a volcanic cone 10,537 feet high, dominates the valleys of the north. Seventy miles northwest rises the magnificent snowy cone of Mount Shasta, 14,440 feet high, visible for more than a hundred miles. Jets of steam and sulphurous gases emerging from Shasta recall former volcanic activity. The seven counties, Lassen, Shasta, Trinity, Humboldt, Del Norte, Siskiyou, and Modoc, north of the great valley, include a vast and thinly-populated country, rough and mountainous, with dry and barren volcanic plains and lava-beds in the east, and the Siskiyou, Salmon, and Scott Ranges in the west. Humboldt has 700 square miles of redwood forests, in which a score of sawmills are making slow inroads.

The Coast Ranges form a vast assemblage of mountains, following the ocean-shore for over 400 miles, with almost treeless and waterless eastern slopes, and large streams and dense forests on their misty and rocky flanks toward the Pacific. This highland region, from 2,000 to 4,500 feet in altitude, and 40 to 70 miles in breadth, stretches from the iron-bound sea-coast to the Great Valley; and contains many beautiful arable glens, dotted with graceful clumps of oaks, and overlooked by higher expanses of chapparal and the bare peaks of the range. The tributary ranges are numbered by scores, especially in the south, where rise the Cuyamarca Mountains, whose chief peak looks into Mexico and out to sea; the San-Gabriel Mountains, running from the Cajon Pass to the Los-Angeles River; and the Santa-Ynez and Santa-Monica Ranges. The Santa-Lucia, San-Rafael, and San-Bernardino Ranges form an almost continuous chain several hundred miles long. The Sierra Nevada and the Coast Range are cross-connected by the Tejon Mountains and the Sierra Madre, under various names, overlooking the valleys of Los Angeles. Los-Angeles County is two thirds the size of Massachusetts, and lies in the latitude of North Carolina, in a climate-producing at once palms and bananas, apples and grapes, with roses blooming in winter, and summers cooler than in the Eastern cities. It includes a great series of valleys, falling from the Sierra Madre's snow-crested labyrinths of cañons and ridges, 40 miles wide, to the blue waters of the Pacific.

YOSEMITE FALLS.

One of the chief features of the view from the San-Francisco region is the Contra-Costa hills, running from the Strait of Carquinez to Mount Hamilton, where it meets the Mount-Diablo Range. Mount Diablo's double-pointed crest, 3,856 feet high, is a famous landmark, and overlooks the Great Valley, the open sea, and the line of the Sierra Nevada for 300 miles. Mount Tamalpais, north of the Golden Gate, may be ascended by a carriage-road from the San-Rafael Valley, and commands a wonderful view. Mount St. Helena, a flat-topped extinct volcano, towers above the head of Napa Valley.



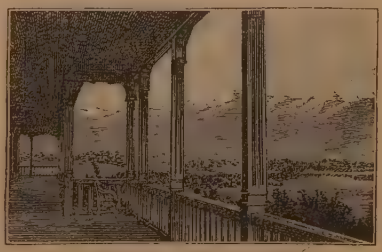
DEVIL'S CANON.

The Great Valley has a level ground of 450 miles long and 40 miles wide, covering 18,000 square miles. This huge elliptical basin is drained by the Sacramento and San-Joaquin Rivers, the former flowing southward 320 miles from beyond Mount Shasta, and the San-Joaquin pouring northward 260 miles from Kern Lake. The Sacramento receives the Feather, American, Yuba and other rivers from the Sierra Nevada; and is navigable for steamboats for 90 miles, to Sacramento, and for smaller steamers to Red Bluff, 160 miles farther. The San-Joaquin rises in the high Sierra, and enters the Great Valley at Millerton. It is navigable for steamboats as far as Stockton, and smaller boats can ascend to Tulare Lake. The united Sacramento and San-Joaquin enter the shallow Suisun Bay, and flow between its low tule-covered islands into San-Pablo Bay, an expansion of San-Francisco Bay.

Lake Tahoe lies on the Sierra, 6,247 feet above the sea, abounding in fine trout, and with deep waters of exceptional purity and coldness. Mark Twain calls it "A sea in the clouds, whose royal seclusion is guarded by a cordon of sentinel peaks that lift their frosty fronts 9,000 feet above the level world." Tahoe is 22 by ten miles in area. Near by, the beautiful expanse of Donner Lake recalls a terrible tragedy of 1846–7. The Truckee River runs from Tahoe to Pyramid Lake, which has no outlet. Mono Lake, with its central cluster of volcanic islands, and its odd-looking masses of tufa along the shores, covers an area of 14 by nine miles, with the Sierra Nevada towering over its crater-pitted plain on one side, and the frowning Inyo Range on the other. The intensely bitter and salty waters of this Californian Dead Sea are almost devoid of life.

Tulare Lake receives the waters of King's River and the Sierra between its low and reedy banks, pouring down into the San-Joaquin in wet weather, and in dry times evaporating. Above are Lake Buena-Vista and Kern Lake. All these lakes have grown much smaller and salter within ten years, as a result of irrigating canals taking away the water from the inflowing rivers. Tulare has lost nearly three fourths of its area, and settlers' claims follow the receding waters. One may wade out for a mile, without getting more than knee-deep, to the hundreds of small islands and bunches of tule, the homes of millions of white birds of the gull species. Into Owen's Lake, Owen's River sinks and disappears. It has been falling for many years, and growing more bitter and poisonous. It covers about 120 square miles.

Goose Lake covers 200 square miles, and contains many fish. Near the immense areas of sage-brush on the Madeline Plains, the bright waters of Honey Lake glimmer over nearly a hundred square miles, in the wet season, and sink into a mud-hole later. A few leagues distant is the deep and crystalline Eagle Lake, shadowed by sombre wooded mountains. About 75 miles north of San Francisco, Clear Lake flashes among the high hills, for a length of 25 miles, with an average width of six miles, and a deep and crystal tide, the home of myriads of fish. Uncle-Sam Mountain pushes its sandstone cliffs far out into the lake, forming the Narrows. Along the shores, vineyards blossom and pretty villas gleam among the trees; and a steamboat plies up and down from many-mounded Lakeport to the bright village of Lower Lake.



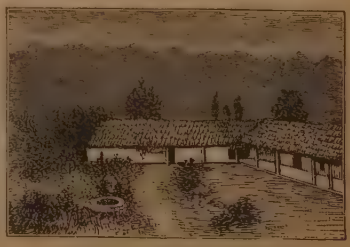
SIERRA MADRE, FROM PASADENA.

The Californian coast finds its chief haven in the noble Bay of San Francisco, 50 by nine miles in area, sheltered by two peninsulas from seven to 15 miles across, between whose

MONTEREY: HOTEL DEL MONTE.

ends opens the strait of the Golden Gate, 400 feet deep, and four miles long. On the northern coast are Tomales Bay and Bodega Bay. Humboldt Bay, in the remoter north, has 40 miles of land-locked tidal area, entered by a narrow channel between roaring breakers. South of San Francisco open the harbors of Monterey, San Luis Obispo, Santa Barbara, and San Diego, the latter of which is twelve miles long, and completely landlocked. Six light-houses beacon San-Francisco Bay, and seven shine out along the northern coast. The light-house on St.-George's Reef, Northwest Seal Rock, is one of the most remarkable in the world, rising, as it does, from a wave-swept rock far out in the sea. It cost above $800,000. The coast south of San Francisco has eleven light-houses, of which that on Point Loma, near San Diego, is the highest in the Republic. Eight leagues seaward of San Francisco rise the rocky islets of the Farallones, one of which towers 340 feet above the waves, and upholds a first-class light-house, with a powerful Fresnel light.

Midway on the coast of California, about 125 miles south of San Francisco, is one of the marvels of the continent. It is the Hotel Del Monte, at Monterey, opened in 1880, and now hardly equalled by any of the sea-shore resorts of the world, while in many respects it far surpasses all others. The building exemplifies the Gothic style of architecture, and is of enormous size, and equipped with every modern comfort and luxury. The great surrounding park shows the very perfection of landscape gardening, with avenues winding between lines of venerable live-oaks and pines, beds of rich flowers and tall cacti, down to the sandy shores of Monterey Bay, where there is a very complete bathing establishment, divided into four great salt-water tanks, heated by steam to different temperatures. The beauty of the coast and mountain-scenery around Monterey, the abiding interest of the old capital of California under Spanish domination, and the serene delight of the climate, have made this locality a favorite pleasure-resort for all seasons (for in this equable climate there are but a few degrees of difference between July and January). The charges for accommodation at this famous resort are very moderate, and the extra cost of a trip to California is more than counterbalanced by the difference in rates at the various well-known resorts of the United States and Europe and this incomparable hotel. This superb establishment, with its leagues of neighboring beaches, its acres of roses and violets and heliotropes, the mingled perfumes of pine-trees and salt waves, and the lovely and healing climate, has been visited and enjoyed by the foremost



CAMULOS: THE HOME OF RAMONA.

American and European travellers, all of whom have been enthusiastic in its praise. The hotel property consists of 7,000 acres of land, comprising the Monterey peninsula, through which have been constructed finely macadamized roadways, including the celebrated Eighteen-Mile Drive, leading from the Del Monte around the coast-line, by the cypress groves and Carmel Bay, and back to the house. The hotel company also controls the great summer-resort of Pacific Grove, between Monterey and Point Pinos, with its El Carmelo hotel and surrounding cottages and villas, where upwards of 5,000 people pass their happy summers.

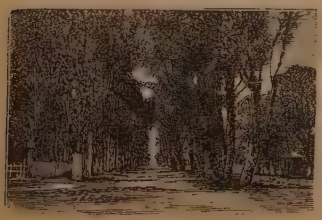
SANTA BARBARA.

The beautiful Valley of Santa Clara is one of the most attractive and interesting regions of California, very accessible to San Francisco and the sea, and yet with all the charms of the fairest rural regions of the Golden State. The climate is one of the best in the world, almost semi-tropical in its softness, and tempered by bracing and salubrious trade-winds from the Pacific. Every one who visits the Lick Observatory goes by way of San Jose, and in order to accommodate these visitors, and also many people entering the Santa-Clara region in search of health and beauty, the great Hotel Vendome has been erected, in the centre of a beautiful park of twelve acres, at San Jose, planted with the choicest shrubbery and trees, a quarter of a century ago, by one of the pioneers of California. Rising from the midst of this magnificent estate, stands the hotel, provided with every modern improvement, a favorite both as a summer and as a winter resort, and the permanent home of wealthy families. Every convenience and facility is afforded here for people on their way to and from the famous Lick Observatory and the many other points of interest in this wonderful fruit-growing valley.

SAN JOSE: HOTEL VENDOME.

Santa Cruz, with its fine beach and picturesque mountains, is rich in singular rock-formations; and near it rises a historic group of huge redwood trees. Santa Monica, on its beautiful bay, upon which the Sierra Santa Monica looks down, is a well-known pleasure-resort; and farther down the coast Long Beach, Del Mar, Ocean-side, San Juan-by-the Sea, and other popular beaches afford recreation-ground for thousands, with surf-bathing all winter.

Off the southern coast, from 20 to 60 miles in the ocean, lie eight islands, rising from the blue sea to mountainous heights, and bearing melodious old Spanish names. One of them has a quaint little village and harbor; three or four are inhabited by myriads of sheep, with solitary shepherds; and others know only the sounds of multitudinous sea-birds and the seals and sea-otter that clamber over their rocky shores. When dark fogs brood over the mainland, these islands bask under a deep azure sky, and listen to the ceaseless roaring of the Pacific. Santa Catalina, a score of miles long, attains a height of 3,000 feet and may be seen from Los Angeles, 40 miles away. Its beautiful marine scenery and bracing air have attracted many summer visitors, in the hotel, and in camps along the shore. Santa Cruz, ascending 1,700 feet into the clear sea-air, is the home of myriads of sheep. Santa Rosa has 42 miles of coast-line, with bold and noble highlands, and a great product of wool.



SAN JOSE; THE ALAMEDA.

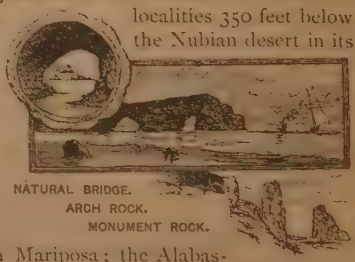
The waters of California abound in valuable fish,

MONTEREY: CYPRESS POINT.

and the State Board of Fish Commissioners maintains hatcheries, dams, fish-ways and patrol boats. The streams have been stocked with black bass, trout and shad, and sturgeon and salmon abound in the rivers. There are plenty of rockfish and tom-cod, turbot and sole, and the delicate-flavored barracouta. The bay-shores yield small oysters and clams, muscles and shrimp, lobsters and crabs. The deep-sea fisheries employ 3,000 men, in 50 vessels and 900 boats, with a product of $1,000,000 a year, in cod, halibut, whale oil and bone. The fishing-banks swarm with food-fish; and the fleet also cruises northward to Bering Sea. The spoils of the deep include also seals and sea-otter. There are salmon canneries on the Sacramento, and also on Eel and Smith Rivers.

The valleys of the Coast Range, Napa, Sonoma, Petaluma, and Russian-River, on the north, and many others on the south, of San Francisco, are full of rich pastoral beauty. Nowhere is one out of sight of high foot-hills or mountain-ranges, which nobly diversify the scenery. In the farther south, hundreds of agricultural colonies have settled in the valleys within a few leagues of the sea, and begun irrigation-works, and the cultivation of fruits. The oldest of the colonies is Anaheim, founded by Germans in 1857, and now rich in 2,500,000 grape-vines and 90,000 sheep. Riverside, Ontario, Pomona, Glendale, Ocean-side, Fallbrook, El Cajon, Colton and other towns have risen rapidly, of late, in this favored corner of the world.

In the southeast the barren sands and scanty vegetation of the Mohave and Colorado Deserts cover thousands of square miles, in some localities 350 feet below the level of the sea. This unvisited land resembles the Nubian desert in its loneliness and its weird colors and shapes; and the Colorado is its Nile. Black and purple mountains loom high above leagues of white sand and alkaline flats; and the lowest levels are diversified by mud volcanoes, where continuous streams of hot water and gas escape from the soft mud.



NATURAL BRIDGE.
ARCH ROCK.
MONUMENT ROCK.

The scenic wonders of El Dorado include also the natural bridges on Hay Fork of Trinity, and on Coyote Creek, in Tuolumne County; Bower Cave, in Mariposa; the Alabaster Cave, in Placer; the petrified forest of great trees, discovered in 1870, north of San Francisco; and the lava beds and mountains of marble.

The Climate.—The State Board of Health finds in California two climates, that of the sea, with low and even temperature and cold damp winds; and that of the land, hot and dry. The valleys around the Bay of San Francisco enjoy a delightful blending of the land and sea air. The rapid changes in San Francisco almost justify the humorous remark that the proper costume to wear there is a linen duster with a fur collar. The damp day-winds rush from the Pacific through the gaps in the Coast Range, to replace the dry and heated inland atmosphere; and vast currents of cold and bracing air sweep through the Golden Gate, to spread out in a fan-shape up the Sacramento and San-Joaquin Valleys. Thus comes some mitigation of the fierce inland heats, which at times reach 110°, but are never attended by sun-strokes. At night the breeze dies, the cool mountain-air descends, and San Francisco sleeps in a light mist from the ocean. The climate is divided into the dry and the rainy seasons, and these differ, from the lovely spring-like winters of the northern counties

SAN FRANCISCO: ALCATRAZ ISLAND.

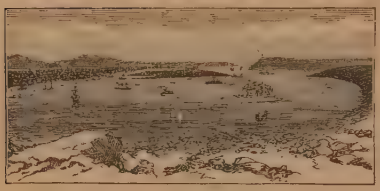
COLORADO RIVER: THE NEEDLES BRIDGE.

to the almost rainless years of the Colorado Valley, and also from season to season, so that the perilous inundations of one year may be followed by prolonged droughts. The Sierra retains its snows the year through, and the remote mining towns endure an Alpine climate. The region of Klamath Lake sometimes has several weeks of sleighing; but the coast and the valleys see little snow. The rainy season is spring-like, and has many calm and sunny days, being the most agreeable part of the year. June, July, August, and September are singularly dry months. In an average Californian year there are 220 days perfectly clear, 85 cloudy, and 60 rainy. During the long rainless and dewless summer, everything turns brown and sear, the ground wrinkles and cracks, and the air grows dusty. The rich green of Eastern landscapes is seen here only in winter and early spring. The heat of the summers is largely tempered by the clearness and dryness of the air, which favor radiation. The climate is much milder and more uniform than that of the other States in the same latitude, with summers whose mean temperature (60°) is within four degrees of the mean of the year. The warm dry winter air and bracing west winds of the southern counties are favorable for alleviating diseases of the throat and lungs. Although much farther south, this region does not suffer from the great heat of the Sacramento Valley, owing to its strong sea-winds and cooling fogs. The rainfall mainly comes during the nights of January, February, and March. The mean average winter temperature of Santa Barbara is 55°; of Mentone, 48.6°; of San Remo, 49.9°. Their temperatures in spring are, respectively, 58.3°, 57.4°, and 57.3°; in summer, 65.1°, 73.3°, and 72.4°; in autumn, 61.9°, 62.3°, and 61.9°. The winters at Santa Barbara are warmer, and the summers cooler, than those of the famous Mediterranean health-resorts. The accurate and careful meteorological reports show but one night on record when a frost touched Santa Barbara (28.5°). In the ten years, 1878-87, the thermometer at Los Angeles rose above 100° but seven times, and fell below the freezing point six times. The rainless southeast is extremely hot, the mean of Fort Yuma being 76°, and the thermometer ranging between 90° and 100°, night and day, for weeks at a time. The gloomy Colorado Desert is swept by frequent sand-storms. The Great Valley is hotter in summer than the coast, and also 40° colder in winter, on account of the huge snowy wall of the Sierra. Earthquakes have visited California many times. In 1812 the missions of La Purisima and San Juan Capistrano were destroyed, with many people, and a huge tidal wave swept inland over Santa Barbara. For months of 1872 the Sierra was agitated by earthquakes, which threw down great granite peaks, and opened cracks in the ground; and 30 persons were killed and 100 wounded.

MOSSBRAE FALLS.

Agriculture.—Many of the farms of California are on a grand scale. A rainy autumn is followed by plowing and sowing in November, and copious latter rains in March and April ensure noble harvests in June and July. The cereal, hay, and root crops of California are valued at $70,000,000 yearly. Vast areas, occupied by arid deserts, cannot be farmed, and much even of the Great Valley requires irrigation. Millions of dollars have been invested in irrigation, in the south, and the fair green tides of cultivated vegetation are already advancing on the Mohave Desert, and flowing over the red mesas of San Bernardino. Southern California, the scene

CALISTOGA: PETRIFIED FOREST.



SAN-DIEGO HARBOR.

of a phenomenal growth in recent years, is one of the gardens of the world, and as fast as water can be led to its rich lands, all the valuable fruits and cereals of the temperate zone and the tropics alike are reaped.

The California wheat is mainly Chilian and Australian, commanding very high prices, and largely exported to England. The wheat-crop reaches 33,000,000 bushels, valued at $20,000,000 a year. San-Francisco flour is sent by shiploads to Central America, China, and Japan, 1,200,000 barrels being exported yearly. Barley is raised to the amount of 16,000,000 bushels. The other cereals have a much smaller product. The bean crop is very large, and 50,000 tons are sent out of California yearly, besides 50,000 tons of other vegetables. The prodigious mangel-wurzels and turnips and 200-pound pumpkins are the result of ten months of growth in this serene climate. Mammoth sugar-beets are raised easily, ten to 20 tons on each acre, and yielding a much larger percentage of sugar than the European beets. The first beet-sugar factory in the Far West was established at Alvarado, in Santa-Clara County, several years ago. Claus Spreckels started one at Watsonville, in the Pajaro Valley, two years ago, with a plant that cost $500,000, and can reduce 500 tons of beets to sugar daily. Around Stockton grow vast quantities of chicory, always salable to coffee-merchants; and mustard of extraordinary ferocity. Here, also, grows the Persian insect-powder plant, whose product is in active demand from Klamath to Fort Yuma. Sweet potatoes and peanuts are raised almost everywhere, in the warm, rich soils, especially in the interior valleys. In the San-Luis Valley cotton grows. The tobacco of the Pacific coast is rank and strong. Hops are produced to the amount of 40,000 bales yearly.

California is now the foremost State in the Union for the cultivation of fruit, with 20,000,000 trees, growing rapidly and producing abundantly. Even the deserted mining-camps in the foot-hills have been replaced by vineyards and orchards. In no other equal area in the world can the fruits of semi-tropical and temperate regions be grown to such perfection, side by side, in the same orchard, orange and apple, lemon and cherry, olive and plum, fig and pear, the pomegranate, the prune, peach, apricot, nectarine, vine, nuts, and cereals. The orange, lemon, and lime thrive along the foot-hills of the Sierras, from Red Bluff on the north to National City on the south. The famous Magnolia Avenue extends for nine miles, between double rows of pepper trees. Great quantities of the finest oranges are sent out from the Sacramento region, and the sheltered valleys of the Coast Range, and the red soils of the northern foot-hills. California has shipped 4,000 carloads of oranges in a season. These oranges do not compete with those of Florida, since the season of sale is from February to July, when the Florida fruit is not in the market. Within a decade, California will probably supply the continent with lemons, as trees are being planted in great numbers, and already the export reaches 50,000 boxes yearly. The Californian limes are of excellent quality. The entire range of deciduous fruits grows to perfection, and the crop has reached 300,000,000 pounds. Peaches are shipped ripe, by train-loads, and meet with a ready sale. The production yearly of 2,000 tons of choice sun-dried and evaporated peaches fails to supply the market, while the demand for canned peaches and other fruits comes from all over the world. Here the delicious apricot and nectarine are produced in abundance and perfection, most of them being canned, with 3,000,000 pounds dried. Prune-growing has assumed vast proportions, with 1,000,000 trees. Their quality became known quickly, and they sell at prices

HETCH-HETCHY VALLEY.

PALM CANON.

above the imported varieties. The dried-prune crop has increased to a yield of 8,000,000 pounds. Californian pears have no rival as a fresh fruit, or canned or dried. Figs grow and produce, but only recently have successful attempts been made to cure them. The State has 300,000 fig-trees; and the same persistent experimenting that has produced the best raisins and prunes may give California the best dried figs. A full car-load of dried figs was shipped from Fresno alone, to New York, in 1889. The stately and graceful English walnut trees bear when ten years old, and beautify and enrich the country. The crop exceeds 1,000,000 pounds. The almond orchards, at blossoming time looking like "a rosy-white cloud or a pink snow-storm," bear 500,000 pounds yearly. Italian chestnuts, filberts, and pistachio nuts are also raised. The yearly crop of peanuts yields 200,000 pounds. Among other fruits are the quince, pomegranate, Japanese persimmon, guava, banana, and apple. The loquat is a yellow Japanese fruit, peculiarly adapted to the climate. Strawberries are in the market every month in the year; and raspberries, blackberries, and currants are grown and canned in great quantities. Many date-palms have been raised from the seed, and bear both the white dates and the red (or China) dates.

The cultivation of olives was introduced by the monks, and has latterly received a great development, the best varieties having been imported from France and Italy. The trees grow from cuttings, a hundred to the acre, in rocky and sandy places, near the coast. The olive is receiving more attention than any other tree. Its adaptability to the climate and soil is marked, and the results obtained in producing an olive-oil equal to the best imported article, are important factors. The Californian olive-oils have the advantage of being pure, as put up by the growers, whereas the imported oils are (as a rule) injuriously adulterated. Her rapid advance in this industry will soon place California among the great olive-producing countries of the world. At Ellwood Cooper's ranche the olives are ground between great stone rollers. The expressed oil stands and settles for three months, and is then filtered through six layers of cotton batting and one of French paper. When bottled it has a delicate straw color, and brings double the price of the best Lucca oil.

A box of Californian raisins was a curiosity a few years ago, and the total output in 1880 was only 75,000 boxes. The capacity now is 2,200,000 boxes of the finest raisins in the world. The wide barrens of Fresno County have been successfully devoted to this industry. The Californian vineyards yield two tons of raisin-grapes to the acre, which exceeds the yield of the Malaga vineyards. In 1890 33,000,000 pounds were shipped.

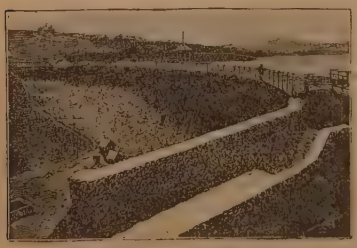
Among the prospering industries of the Pacific Coast, one of the most interesting and profitable is that of putting up various articles of food and delicacies in cans and other vessels, for preservation and shipment. The abundant fruit production of California finds this one of its best outlets, and the delicious pears and peaches, plums and other fruits of the Golden State are thus sent out all over the world. Among the leaders in this business is the firm of Code, Elfelt & Co., whose great factories are equipped with all the modern devices for canning food, and employ a considerable force of skilled operatives. This house dates from the year 1867, and its growth has been step by step with that of the fruit-raising industry of California, the main characteristic being the uniform high grade, so that the Code, Elfelt & Co.'s Californian fruits have long ago become the recognized standard for the best quality and choicest selection, and command the highest prices.

SAN FRANCISCO: CODE, ELFELT & CO.

Between 1858 and 1862 a wide-spread interest in vine-planting sprang up, and the State sent Agoston Haraszthy abroad to study European methods. He brought home 200,000 vines and cuttings from Europe and Asia Minor, Persia and Egypt. The State Viticultural Commission was founded in 1880, since which the capital invested in the vineyards has risen from $14,500,000 to $87,000,000. There are 200,000 acres planted with young vines, and producing over 300,000 tons of grapes yearly. In the four years, 1884–8, upwards of 50,000,000 gallons of wine were made in California, two thirds of which went East. The yearly product now is about 17,000,000 gallons, with 1,000,000 gallons of brandy.

SAN FRANCISCO: TELEGRAPH-HILL OBSERVATORY.

The grape country is 600 miles long and 100 miles wide. California has three grape-growing districts: (1), the Coast (Sonoma, Lake, Alameda, Santa-Clara and Santa-Cruz counties), producing fine grades of white and red dry wines, Sauternes, clarets and champagnes; (2), The red Sierra foothills and the Sacramento Valley (Placer, El Dorado, Calaveras, Tuolumne, Yuba, Yolo, Butte, Sacramento and Tehama), yielding dry wines, table-grapes and raisins; and (3), the southern district (San Joaquin, Merced, Fresno, Tulare, Kern, Ventura, Santa-Barbara, San-Bernardino, Los-Angeles, Orange and San-Diego counties), rich in sugary grapes, making heavy sweet wines, like Port and sherry, Angelica and Muscatel. Fresno County produces 700,000 boxes of raisins yearly. The old Mission vineyards supplied fruits until the handsome and prolific Zinfandel was introduced. But it soon became apparent that the Zinfandel was an inferior grape, after all, and to cap the climax, the phylloxera came down on the Hungarian importation and bore it away. No new vineyards were replanted with the Zinfandel, and the vine is being replaced with the choicest and hardiest wine-grapes from Europe, including Cabernet Sauvignon, Cabernet Franc, Malbec, Tannat, Merlot and St.-Laurent grapes from the Bordeaux districts; Mataro, from Palos; Semillons and Sauvignons, from Sauterne; Pinot and Petite Sirrah, from Burgundy; Johannisbergers, Traminers and Franken Rieslings, from the Rhine; Chasselas, from Alsace-Lorraine; delicious Burgers, from Moselle; the rich Spanish Muscats; and the favorite Hungarian table-grape, the Flaming Tokay. In no other vine region in the world, are all these splendid fruits found side by side, and they make of California the wonderland of the vine. California has the largest vineyard in the world, in Tehama County, on Stanford's farm. It contains 4,000 acres. The largest wine-cellar in the world is at St. Helena, the capacity being 2,500,000 gallons.


SWEETWATER DAM: IRRIGATION-WORKS.

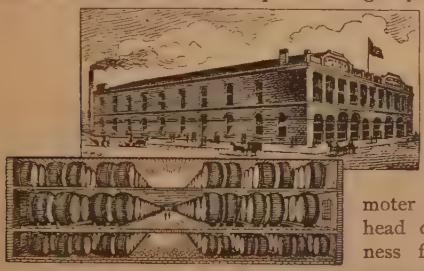
The wonderful Orleans Vineyard is in Yolo County, near the entrance of the Capay Valley, and covers 400 acres of foot-hills, with vines grown from the choicest grapes of the Champagne and Burgundy and Medoc districts, in 45 varieties. The roads traversing this noble estate are bordered with fig and olive, orange and lemon trees. The great wine-cellar has every modern appliance for the manufacture and storage of 300,000 gallons of wine. The products of this vineyard are celebrated for their agreeable freshness in taste, and prepossessing bouquet, and are used at the leading American hotels, and also largely in Europe, where this estate has an agency. The Arpad Haraszthy's Brut, Arpad Haraszthy's Extra Dry and Eclipse Champagnes are the three famous brands made here, from natural fermentation in

ARPAD HARASZTHY & CO.'S ORLEANS VINEYARD.

bottles, the process being the same as that used in France. The vineyard belongs to Arpad Haraszthy & Co., who also have immense stores and warehouses in San Francisco. Mr. Haraszthy is the son of the pioneer of scientific grape-culture in California, and spent five years (1857–62) in Europe, studying vine-growing and wine-making.

ORCHARD IRRIGATION.

The phylloxera, which during the past few years played great havoc, is being overcome. The inferior grapes upon which the pest feeds are being rooted out, and the choice foreign varieties, which are subject to it, are protected by grafting on native wild varieties known as resistant vines, which the phylloxera does not affect. The marketing of the wines of California is done principally at San Francisco, whence they are shipped to almost all points of the world. One of the largest, oldest and best known of the wine-dealers of California is the firm of S. Lachman & Co., of San Francisco, with a branch house in New York. At their establishment may be seen a wonderful and complete storage system for aging, maturing, and blending the native product. Its capacity of over 2,000,000 gallons, and the facilities for handling that immense quantity from year to year, indicate the incessant labor and capital involved in placing the wines before the consumer. The wines are contained in huge casks and tanks, varying in capacity from 1,500 to 16,000 gallons each. The promoter and founder, Samuel Lachman, still the head of the firm, has been a leader in the business for 25 years. The plant covers 275 feet square, the greater portion of which is occupied by the immense storage vaults, three floors in extent; and space set apart for the manufacture of cooperage occupies another portion of this ground. Forty men are employed in handling and preparing wines for shipment. Medals and diplomas have been awarded at various International Expositions, and many letters of encomium received from connoisseurs everywhere. The wines are brought from vineyards throughout the State, and comprise white wines of the Gutedel, Sauterne, Traminer, Riesling and Hock types; red wines of the Burgundy, Zinfandel and other red-wine grapes; and sweet wines, like Angelica, Catawba, Ports, Sherries, Muscat, Mount Vineyard, Tokay, Malaga, and Madeira. Special attention is given to the careful bottling of fine wines, and to the purchasing of fine brandies produced in the State.



SAN FRANCISCO: S. LACHMAN & CO.

California is the foremost wool-producing State, for her 6,000,000 sheep give yearly 35,000,000 pounds of fine and heavy fleeces. In 1876 the wool-clip amounted to 56,500,000 pounds, but the industry has declined since that time. During summer and early autumn the high valleys of the Sierra contain innumerable sheep, driven up from the dry hot lowlands, where they pass the winter without need of shelter. There are several ranches of over 100,000 acres each, like the Lux & Miller, Beale, and McLaughlin, devoted to raising cattle and sheep, with vast areas of pasturage on the mountains, abounding in nutritious grasses. The State has 800,000 neat cattle, 50,000 milch cows of

BEAR-VALLEY DAM.

good stock, 250,000 horses, and 400,000 swine. It produces yearly 15,000,000 pounds of butter and cheese, much of which is exported to Asia and the Sandwich Islands. Fully $30,000,000 worth of cattle are slaughtered yearly. The majority of the horses are Mexican mustangs, of Spanish breed, hardy little creatures, and good mountaineers, but packed to the ears with mischief and malice. Most of the old Spanish-Mexican population clings to the pastoral life of the stock-ranches, serving as herders, and galloping around the flocks, perched high on their peaked saddles on peppery little mustangs. The favorite forage-plant is alfalfa, or Chilian clover, a deep-rooted lucerne, resisting the fiercest droughts, and yielding twelve tons to the acre. The leading horse-breeding establishments are Leland Stanford's, the Hearst estate, and Baldwin's, where many famous race-horses have been reared.

POINT PINOLE: UNION STOCK-YARDS OF SAN FRANCISCO.

The erection of great stock-yards on the Pacific Coast has been rendered necessary, for the food supply of the thronged and important cities of this fast-developing region, and of the steamship lines running out of San Francisco. Vast quantities of canned and cured meats are also exported to the islands of the Pacific, and for the use of the Pacific and China squadrons. Accordingly, the Union Stock-Yards Company has been formed, with a capital of $2,500,000, and has built large modern yards on its 1,500 acres of land, on the main double-track line of the Southern and Central Pacific systems, with a frontage of nearly two miles on the Bay of San Francisco, at Point Pinole, near Berkeley. Of the live-stock grown on the Pacific Coast 85 per cent. comes to market over the rails leading by these stock-yards, whose wharves also are visited by ships from all parts of the world. Here, therefore, will be the great distributing point for fresh and cured meats for an immense population; and the pork-packing houses, tanneries, and similar industries will probably be concentrated on this tract, which is the most convenient place for their purposes in the vicinity of San Francisco.

With a climate like Italy, Southern China, and Japan, California hopes to become the great silk-producing State. Thousands of black and white mulberry trees have been brought here from Milan, to afford food for the silk-worms. In 1854 the honey-bee entered California, and now there are above 50,000 hives in Los-Angeles and San-Diego counties alone, besides thousands of escaped swarms, working all the year round. Over 6,000,000 pounds of honey are obtained yearly, besides 300,000 pounds of comb and 20,000 pounds of beeswax. Some of the larger bee-ranches have 1,000 hives each, and every hive good for a hundred pounds of honey a year. The abundant spicy flowers and aromatic sage-brush give this honey a unique and delicious taste. There are several ostrich-ranches, where the beautiful African birds are successfully raised, each breeding pair having a pen of an acre in area, and living on alfalfa and corn. These powerful and pugnacious creatures are dangerously savage during breeding time, when they lay their eggs in deep holes in the sand.

Gold Mining has produced in California, between 1849 and 1890, nearly $1,300,000,000 in bullion. The State yields more gold than any other, and nearly half of the American output. For 15 years (1850–64, inclusive) the yield exceeded $50,000,000 a year; but for the past 15 years it has fallen below $20,000,000. The gold-fields extend for 400 miles along the Sierra foot-hills, with an average width of 35 miles. Another smaller field lies in the northwest, in the Coast Range. Gold abounds in Southern California also; where Los-Angeles County alone has produced $10,000,000. The first mining was in the placers, where the gold-seekers washed

ALHAMBRA: PUBLIC LIBRARY.

the earth or sand in pans or rockers, until the soil passed out, leaving a sediment of heavy yellow dust, which was gathered into an amalgam, by adding quicksilver. Very little placer-mining is now done, except by the Chinamen. In hydraulic mining, powerful six-inch jets of water, with head enough to be hard as steel, are turned upon banks of auriferous gravel, previously loosened by blasting, disintegrating them, and leaving the gold to be caught in cavities in the sluices below. To furnish this water, over 5,000 miles of aqueducts were built, with reservoirs, dams, and trestles, at a cost of above $10,000,000. The hydraulic mines were mainly in Nevada, Placer and Sierra counties, and on the Klamath River. The gravel, or tailings, washed down inflicted great damage in the distant lowlands. The land-owners combined and secured judicial decrees against the miners, who were forced to erect costly and capacious retaining dams. As a result, hydraulic mining has been practically suspended, except on the Klamath River. In river-bed mining, the bed of the stream is laid bare, by diverting the water, and the gravel therein is washed in sluices. Drift mining consists in driving tunnels to the auriferous beds of ancient streams, bringing up the rich gravel, and washing it in sluices. One third of the gold is obtained by quartz-mining, crushing the gold ore removed from shafts, by heavy iron stamps, and extracting the precious metal, by amalgamating with quicksilver. This mining is done on the Mother Lode, which extends 80 miles, from Mariposa to Amador. The name of the Golden Gate, given long before gold was found in California, proved to be prophetic; and myriads of Eastern Argonauts, Mexican-War veterans, Kanakas, Peruvians, and Australians poured into the land of treasure. In their mining towns, Red Dog, Git-up-and-Git, Gouge-Eye, You Bet, Nearly Hell, Hell Itself, and the like, they lived flush, and spent their gold as fast as it came—$3 for an egg, $15 for a shovel, $4 for a cup of coffee, and so on.

SAN QUENTIN: STATE PRISON.

SAN FRANCISCO: UNITED-STATES MINT.

Silver-Mines abound east of the Sierra Nevada, and have absorbed a vast amount of labor and capital, but have not been profitable. The lonely valleys beyond the Sierra are made more melancholy by the ruins of reduction-works and abandoned towns. The silver-belt stretches from Alaska far down into South America. It has produced $26,000,000 in bullion, in California. The chief Californian mines are near the Mohave River.

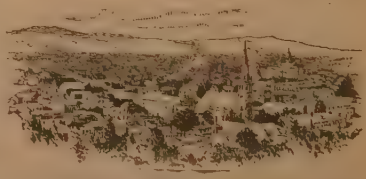
The quicksilver product of California has exceeded $70,000,000; and goes on at the rate of 25,000 flasks (2,000,000 pounds) a year, much of which is exported to Mexico and China. There are 36 large furnaces now active, each roasting from 20 to 40 tons of ore daily, when needed. The deposits at New Almaden have produced above 800,000 flasks. Other mines are worked in Lake and Napa counties.

Copper has been a valuable product, but the fall in price destroyed this industry. The high price of the metal since 1887 has caused several companies to re-open mines. Lead is produced from the silver ores of the Eureka, Cerro-Gordo,

SAN DIEGO: HOTEL CORONADO. CORONADO BEACH.

YUMA.

and other mines, mainly at the Selby Smelting Works, at San Francisco. Iron abounds, but is generally hard to get at, and remote from fuel. The first exploiting of this product occurred in 1881, when the California Iron Company fired up furnaces at Clipper Gap. About 10,000 tons of chromic iron are shipped yearly to Scotland and Baltimore. Salt is made, by the evaporation of sea-water, at San Diego and Santa Monica, and on San-Francisco Bay. The California Salt Works, at Mount Eden, have 3,000 acres of evaporating surface, and make yearly 15,000 tons of salt; and 3,000 tons are made yearly at Dos Palmas, in the Colorado Desert. Borax is manufactured at Slate-Range Marsh, San-Bernardino County, to the extent of 15,000 tons yearly. The purest crystallized borax in the world is found in the lakes and springs of Lake County. The yearly product is valued at a high figure. Near Keeler great quantities of soda are made, by evaporating the water of Owen's Lake. The volcanic rocks of Lake County, reeking with steam and vapors, are rich in sulphur. About the year 1867, works were put up, and hundreds of tons of refined and brilliant sulphur went hence to San Francisco, until the competition of Sicilian sulphur destroyed the trade. Antimony has been mined on a large scale at San Emedio and Slayton, but without profit. As a producer of petroleum, California comes fifth, yielding 150,000 barrels yearly. It is pumped from deep wells in Santa-Clara, Los-Angeles, and Ventura counties, at from five to 200 barrels each per day, and this region is equipped with refineries and pipe-lines. The oil-territory extends for 160 miles, and $3,000,000 are invested. The Pacific Oil Company's refinery, built in 1879 at Alameda Point, covers 15 acres. There are gas-wells near Clear Lake. Coal has been mined for 25 years on Mount Diablo, where there are veins of inferior bituminous coal (or lignite). Over 100,000 tons are sent yearly to San Francisco. Coal has been derived in large amounts from the mines of Contra Costa and Amador, but the quality is not of the best, and consequently the industry is declining. Tin is found in San Bernardino, nickel in Monterey, manganese in Alameda, graphite in Del Norte, and arragonite in Colusa. Elsewhere occur deposits of platinum, iridium, tellurium, cobalt, alum, asbestos, isinglass, bismuth, alabaster, mineral paint, and kaolin. In the early days San Francisco sent to Australia for the stone to build its old city hall, and to China for the materials used in the walls of the Union Club and the Wells-Fargo offices. Since that time the local resources have become better known, and hundreds of quarries are in successful operation. Granite and gray sandstone are produced in great quantities, and at many places. Fine-grained dolomite is found at the Inyo quarries, porphyry at Riverside, tufa at Napa, soapstone at Sonora, serpentine at Benicia, basalt at Concord, red and white marble at Plymouth and Colton, at Antelope Valley and in Amador, and black and blue slate near Placerville. There are large lime-kilns in several localities. The beautiful marble and onyx of Glover Mountain, near Colton, have a high decorative value, and are extensively worked. Another immense marble region is in Inyo County. The new Mills Building is faced with Inyo marble. Fine bituminous rock, for street paving, is shipped from Ventura.



SAN JOSE, FROM THE DOME OF THE COURT-HOUSE.

SAN FRANCISCO: ST.-IGNATIUS CHURCH AND COLLEGE.

SIERRA MADRE: CHURCH OF THE ASCENSION.

The mineral springs are of great variety, and occur amid beautiful mountain scenery. Napa Soda Springs flow from a mountain-side above the charming Napa Valley, and the grounds cover 1,000 acres, in which there are numerous stone buildings and cottages. The White Sulphur Springs bubble up in a deep and romantic gorge near St. Helena. The Hot Springs of Calistoga contain sulphur, iron and magnesia, at a temperature of 185°. The Geysers, one of the revealing marvels of the earth, with its "crust of fossils and heart of fire," are hidden in a Tartarean gorge among the violet peaks and redwood forests of the Mayacamas Mountains, with boiling and spouting springs of iron, soda, alum, and ink, and white, red and black sulphur waters, dark Stygian pools, cliffs forever wreathed in steam, black swirling caldrons, hot ashes, chemical odors, and intense colors, a veritable Satan's medicine-shop. The California Seltzer Springs have a good alkaline water. Highland Springs, in Lake County, are alkaline, and charged with carbonic acid. The hotel is 1,740 feet high, among the Mayacamas Mountains. Other resorts are the Aqua de Vita, in Alameda, with saline and sulphur waters; the Mission-San-José Hot Springs; the Byron Hot Springs, 65° to 128°, in a valley of Contra Costa; Paraiso Springs, near Monterey; Ætna Springs, in Pope Valley (Napa); Campbell's Hot Springs, 5,025 feet high, in Sierra County; Skagg's Hot Springs; Bartlett Springs; and Seigler Springs, near Clear Lake, with valuable chalybeate waters. Southern California has thousands of mineral springs, bubbling, rushing, and jetting from its volcanic strata, like those at Lang, Temecula, Matilija, Temescal, San Juan, and San Fernando. The hot sulphur waters of the Santa-Barbara Springs are efficient in chronic rheumatism. The hotel is 1,450 feet above the sea, in a pleasant and equable climate. The Arrowhead Hot Springs break forth in a cañon of the San-Bernardino Range. They number 25, at temperatures from 140° to 193°; and the hotel is 2,000 feet above the sea. The Carlsbad waters resemble those of the German Carlsbad. The hot springs at El Paso de Robles have for many years been visited by people of fashion.

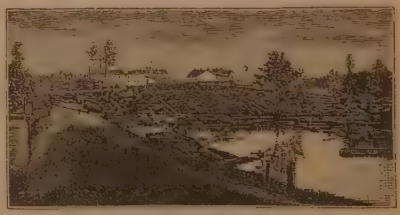
SACRAMENTO: THE CATHEDRAL.

The State Board of Forestry has done good service in introducing the Tasmanian blue-gum, Australian sugar-gum, Torrey pine, locust, wattle, and catalpa. It has six large parks, with plantations of trees; and publishes valuable illustrated reports. The monarchs of all these woodlands are the *Sequoia gigantea*, growing in groves along the Sierra Nevada, from 6,000 to 7,000 feet above the sea. High up in the valley of King's River is a forest, where for leagues the lofty tops of these redwoods rise above their lowlier brethren. The tallest of them reaches a height of 325 feet, and their circumference is from 50 to 100 feet. The bark has a thickness of two feet. The Big Trees have been visited by thousands of tourists since their discovery, in 1852, most of the people going to the Calaveras Grove, where there is a road and hotel. There are famous groves on the Stanislaus, the Merced, and the Tuolumne River. The Big-Tree Groves of Mariposa cover above 2,500 acres, 6,500 feet above the sea, and have been reserved as the Sequoia National Park. They contain more than 300 great trees, much marred by fire, but still wonderfully grand and impressive. The Calaveras Grove includes nearly 100 Big Trees, several of them over

REDWOOD FOREST.

FORT BRAGG: FORT-BRAGG REDWOOD CO.'S MILLS.

300 feet tall. These are the loftiest trees in all America. One of them has been cut down, by five men working 22 days; and its stump forms the floor of a pavilion 23 by 24 feet in area. The redwoods (*Sequoia sempervirens*), whose magnificent forests thrive only in the sea-fogs of the Coast Range, and mainly north of the Golden Gate, reach a height of 300 feet, and afford a durable and valuable wood for building. This is one of the most highly prized varieties of lumber, and has latterly been shipped in great quantities to the Eastern States, where its ornamental properties are fully appreciated. Among the chief handlers of redwood are the well-known and allied Fort-Bragg Redwood Company and Noyo Lumber Company, which own vast tracts of woodlands, and are continually investing in areas of forests. Their domain covers over 70,000 acres of land, and the rest of the plant includes eight miles of railway, besides vessels and mills, and other efficient and valuable auxiliaries. The chief mills are at Fort Bragg, on the great belt of redwood which runs through Mendocino County, along the coast, with a breadth of 15 miles. In this vast area of virgin forest the companies employ 800 men, getting out redwood and pine, for lumber and shingles, shakes and ties, logs and posts. The long ocean-frontage and the two harbors on this great domain give unusual facilities for the exportation of lumber, much of which is formed into rafts and towed to San Francisco. These companies were the first to inaugurate the rafting system on the Pacific Coast; and they are the largest dealers in split redwood railroad ties, which have come into general use and favor.



FORT BRAGG REDWOOD CO.'S MILLS.

The other interesting trees of the Coast are the cypresses of Carmel Bay, the great pines of Monterey, the glossy-leaved madroño, and the fine-grained California laurel. The Great Valley is diversified by many groves and clumps of lobata oaks, changing on the foot-hills to scattered Douglas and live oaks and digger pines. Higher up along the Sierra come the large white cedar, yellow and black pines, and Douglas fir, the last-named covering vast areas and having high economic value. On this same belt are the amazing sugar-pines, reaching a height of from 200 to 300 feet, and highly prized for timber. At from 4,000 to 8,500 feet above the sea, these trees give place to the grand coniferous forest of California, the hardy white, red and silver cedars and tamaracks and pines, and many silver spruces, above which stretch the untrodden snows and granite peaks. The hickory, beech, elm, and other well-known trees are not found here, and much timber has to be imported for industrial uses. The magnificent oaks and sycamores of the south fairly shut out the sunlight, and alternate with mountain fronts and cañon-sides carpeted with chapparal, or matted thickets of innumerable many-colored shrubs. On the valley ranches long belts of eucalyptus and poplar have been planted for firewood, and to keep the wind from the olive-yards and almond groves.

FORT-BRAGG REDWOOD CO.'S RAFTS.

The chief animals are the fierce grizzly bears of the Coast Range; the black and the cinnamon

BIG TREES.

bears, the deer and antelope, and the mountain goats of the Sierra Nevada; the elks of the Shasta region; the famous sea-lions of the Farallones and Seal Rocks, whose huge size, unwieldy gambols and odd noises are observed by nearly all visitors to San Francisco; the gophers and squirrels, detested by husbandmen; and the beavers, still remaining in remote places. The birds number 350 species, headed by the largest American flyers, the California vultures.

Government.—The Governor of California is elected for four years. The Legislature includes 40 four-years' senators and 80 two-years' representatives. The Supreme Court has seven justices, elected by the people for twelve years. The magnificent State Capitol at Sacramento was built in 1860–74, at a cost of $2,600,000, and stands in a park of 25 acres, abounding in lawns and flowers.

The National Guard of California is organized into a division of six brigades, composed of seven regiments and four companies. The First and Third Infantry, Second Artillery (eight companies serving as infantry), Battery A (four Parrotts and four Gatlings), and the Hussars, are at San Francisco; and the Fifth Infantry belongs in neighboring cities. The Sixth Infantry comes from about Stockton; the Seventh Infantry from the Los-Angeles country; the First Artillery, from the Sacramento region; and the Chico, Colusa and Eureka Guards. There are occasional encampments of portions of the National Guard, and some attention is given to rifle-practice. The uniform resembles that of the United-States army.

The Napa State Asylum for the Insane, with 1,500 inmates, is a noble building, surrounded by lawns and orchards, vineyards and olive-yards. The Stockton State Asylum for the Insane holds 1,700 patients, in commodious buildings, amid spacious and pleasant grounds. The California Hospital for the Chronic Insane, at Agnews, holds 500 incurables. The Mendocino Insane Asylum is at Ukiah. The South-Californian State Asylum for the Insane was founded in 1889. The California Home for the Care and Training of Feeble-Minded Children, opened in 1885, at Santa Clara, has over 100 inmates. The California Institution for the Education of the Deaf and Dumb and the Blind, at Berkeley, has 160 boys and girls, in a group of cottages looking out through the Golden Gate to the Pacific Ocean. There are 19 orphan asylums receiving State aid and inspection. The State Prison at San Quentin, twelve miles from San Francisco, across the bay, has 1,400 convicts, including many Mexicans and Indians. The State Prison at Folsom, opened in 1880, has 700 inmates. The State Reform School for Juvenile Offenders, at Whittier, in Los-Angeles County, is conducted on the cottage-plan, and teaches various trades, besides farming and fruit-growing. The Preston School of Industry for Youthful Criminals was founded in 1889, at Ione City, Amador County.

National Institutions.—The only American naval station on the Pacific Coast is the Navy Yard at Mare Island, 28 miles from San Francisco. The usual stone and brick buildings for construction and storage, hospitals and barracks, are grouped on one side of a fertile island ten miles around, with deep water and good anchorage off-shore. The three-million-dollar stone dry-dock can accommodate the largest ships in the world. Of late years the yard has been abandoned to peaceful decay, with the ironclads *Monadnock* and *Comanche* rusting at their moorings, and Farragut's flagship *Hartford* rotting in the stream. The Presidio Reservation extends along the Golden Gate, with pleasant parade-grounds and barracks, and the largest garrison on the Pacific Coast. Here

BERKELEY: UNIVERSITY OF CALIFORNIA.

SAN FRANCISCO: THE SYNAGOGUE.

Fort Winfield Scott's casemate batteries and barbette earthworks face the narrowest part of the Golden Gate. Fort Mason is another defence of San Francisco. Alcatraz Island rises inside the Golden Gate, as picturesque as Malta, with its ascending lines of fortifications. Angel Island is occupied by batteries, barracks, and parade-grounds. Fort Bidwell, the station of two companies of cavalry, overlooks the 60 miles of the Surprise Valley, with its three bitter alkaline lakes and wide-spreading plains of sage-brush. Fort Gaston, in the Hoopa Valley, has one company of bored and lonely infantrymen. There are barracks at Benicia and San Diego; and an arsenal at Benicia. Southern California is in the Military Department of Arizona, whose headquarters is at Los Angeles. The National Soldiers' Home at Santa Monica occupies 300 acres of beautiful rolling land, and amid these magnificent scenes of nature, and in this glorious climate, 600 old warriors are quartered. The Veterans' Home at Yountsville receives disabled Californian soldiers.

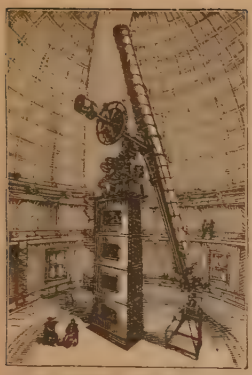
The Mission Indians number more than 3,000, and occupy 21 little reservations in Southern California. They are of medium height and sturdy build, with flat faces, of a ginger-cake color. Their chief occupation is farming, and many earn good pay as farm-laborers and sheep-shearers. The Hoopa Reservation covers 140 square miles, on the Trinity River, and contains 463 Indians of the northwestern tribes, mostly engaged in farming. The little Klamath-River Reservation has 220 Indians, who excel in the salmon fisheries. The Round-Valley Reservation, in the northern Coast Range, with 500 Indians, has been almost entirely seized by white trespassers.

LOS ANGELES: Y. M. C. A.

Education.—The yearly school revenue is above $5,000,000. The school-property is valued at $14,000,000; and the school-fund, held by the State Treasurer, exceeds $3,000,000. The State series of text-books are compiled and manufactured in California, and sold to the students at cost. The private schools have an attendance of 21,000 children. The normal schools are at San José, Los Angeles, and Chico.

The University of California is the crown of the educational institutions of the State. It was developed by State and National gifts, upon a remarkable foundation — the old College of California, established before the close of the mining era, by Henry Durant, Dr. Bushnell, and other New-Englanders. This college maintained a standard of scholarship equal to that of Yale. In 1868 its trustees turned over the whole institution to the University, which was then in process of creation, and devoted all their energies to advancing the interests of the enterprise. The University, under the Hatch Law, controls $15,000 a year from the National Government, for agricultural experiment stations. The State adds a large appropriation, and the whole, under the direction of Prof. E. W. Hilgard, is spent on four stations and several substations, where many important horti-

SAN FRANCISCO: THE PALACE HOTEL.



LICK OBSERVATORY TELESCOPE.

cultural experiments are made. The endowment of the University represents $7,000,000. In 1873 the institution moved from the old college buildings to its present site at Berkeley, covering 200 acres on the lower slopes of the Coast Range, whence the view passes seaward through the Golden Gate. It has upwards of 400 students, including 50 women. In the classical course there are 50; literary, 40; letters and political science, 106; agriculture, 14; mechanics, 23; civil engineering, 34; chemistry, 23; and others are in special students' courses. There are 27 professors and associate professors, and 28 other instructors. The schools of Dentistry (50 students), Pharmacy (77), Law (76), and Medicine (97), are at San Francisco. No tuition is charged, save in the professional schools.

The world-renowned Lick Observatory, and the astronomical department of the University, was founded by James Lick, a Pennsylvanian, who made a fortune in South America, and vastly increased it in Californian real estate. He was buried (not at his direction) in the solid pier of masonry which upholds the great telescope, ordered in his trust deed to be "superior to and more powerful than any telescope ever yet made." The United States granted Mount Hamilton; Santa-Clara County built a noble road, 26 miles long, from San José to the summit; and California assumed the publication of the observations. The peak is occupied by the brick buildings for the observatories, instruments, and library, and the astronomers' dwellings. The view includes the bays of San Francisco and Monterey, the lovely Santa-Cruz Mountains, the San-Joaquin Valley, and the colossal Sierra, and Lassen Butte, 175 miles north. The telescope has an object-glass 36 inches in diameter, and a tube 56 feet long. It is the largest refractor ever made. Warner & Swasey, of Cleveland, (Ohio), designed and built the 36-inch equatorial telescope, and also the 6-inch equatorial and the 25-foot steel dome. The time-service of all the Pacific railways, from Ogden to El Paso, is given out from the Lick Observatory.

The University of Southern California, founded by the Methodist Episcopal Church in 1880, has large land endowments, with its colleges of letters, music and medicine in and near Los Angeles, a theological school at San Fernando, and a school of agriculture at Ontario.

The Leland Stanford Junior University, planned by Senator Stanford as a memorial of his deceased son, and which he expects to endow with $20,000,000, will include a complete system of education, from the kindergarten to learned post-graduate schools, with colleges of law, medicine and music, conducted by the foremost men in these departments. The present endowment consists of about 30,000 acres of land, which cannot be sold. The University is at Palo Alto, south of San Francisco, in a lovely pastoral country, and with views of the Coast Range. Several of the buildings are finished, in a grand Moorish architecture, of yellow sandstone. Shepley, Rutan & Coolidge, of Boston, are the architects.

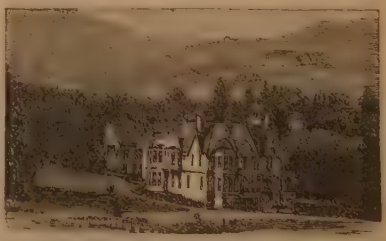
Among other colleges the Catholics have St. Vincent's (1867), at Los Angeles; St. Ignatius (1855), at San Francisco; the Jesuit College, at Santa Clara, with 178 students; the College of Notre Dame, at San Diego, for Catholic girls; and the Franciscan College, at Santa Barbara. The Methodist-Episcopal Church conducts the Pacific Methodist College (1861), at Santa Rosa; and Napa College (1870), at Napa City. The University of the Pacific has five large buildings on its domain, between San José and Santa Clara, with 16 instructors and 188 students, besides 235 preparatory pupils.

MOUNT HAMILTON: LICK OBSERVATORY.

AGNEWS: HOSPITAL FOR THE INSANE.

The Cogswell Polytechnic College, at San Francisco, was erected and equipped by its founder, and is maintained by the city. It enjoys an endowment of $300,000, and began its work in 1888. At Woodland and College City are Christian colleges; and San-Joaquin College is at Woodbridge. The theological schools are at San Rafael (Presbyterian; founded in 1871, and well endowed); Benicia (St. Augustine's, Episcopal); and Oakland (Congregationalist; 1869; 35 students in 1890). The Hastings College of Law belongs to the University of California. There are medical schools at San Francisco, Oakland, and Los Angeles, with 225 students; and dental and pharmaceutical colleges at San Francisco.

Belmont School was opened in 1885, near Belmont, on the Southern Pacific Railroad, 25 miles south of San Francisco. It was founded by the present Head-Master, W. T. Reid (Harvard, 1868), who resigned the Presidency of the University of California for the purpose of carrying out his long-cherished plan of erecting a preparatory school for boys, which should hold an honorable place among the best educational institutions in the country. The location of the school is probably unsurpassed as regards healthfulness, beauty, convenience, and adaptability. Its steadfast purposes are to offer thorough preparation for those colleges and technical schools whose requirements for admission are most severe; to do all that it may to quicken the moral and religious sense, and strengthen the moral courage; and to give such attention to systematic physical culture as shall contribute to good health and a vigorous physical development. The graduates of the school have for the most part entered Harvard, Yale, The University of California, Cornell University, or the Massachusetts Institute of Technology. No candidate from the school has ever failed to pass the examinations for which he was recommended as prepared, and it is the only private school in the State whose graduates are admitted to all departments of the University of California without examination. Physical culture under the direction of a special teacher of gymnastics is a stated requirement, and has a place in the programme of exercises, the same as mathematics, English, or any other requirement. Military drill is a feature only as an adjunct to the work of physical culture. The discipline of the school is very simple, and entirely in the interest of boys who are on the whole well meaning. Belmont does not pretend to keep and successfully deal with bad boys, and is perhaps a little intolerant of them, for it insists on their immediate withdrawal as soon as their unruly, vicious, or vulgar dispositions become known. The school does not attempt the good work of reformation, and it is not therefore a fitting place for boys who need what is ordinarily termed severe discipline.



BELMONT: THE BELMONT SCHOOL.

UNIVERSITY OF CALIFORNIA: THE LIBRARY.

The California Academy of Sciences, founded in 1853, was endowed with $500,000 by James Lick, and has large collections in botany, entomology, birds and fishes. It occupies a fine Romanesque building at San Francisco. The Mining Bureau has an immense collection of Californian ores and minerals.

Public libraries are found in Alameda, Marysville, Napa, Oakland, Petaluma, Sacramento, Ventura, San Diego, Santa Barbara, Los Angeles, Stockton, Riverside, and other places. In San Francisco the chief libraries are the Sutro, 110,000 volumes; Free Public, 70,000; Mercantile, 60,000; Bancroft Pacific, 45,000; Mechanics' Institute, 45,000; Odd Fellows', 40,000; and California Academy of Sciences, 10,000. The State Library at Sacramento has 70,000; the University at Berkeley, 28,000. Hubert Howe Bancroft, the historian of the Pacific States, has a fire-proof library at San Francisco, containing 45,000 volumes. The chief collection of paintings is the Crocker Art Gallery, at Sacramento.

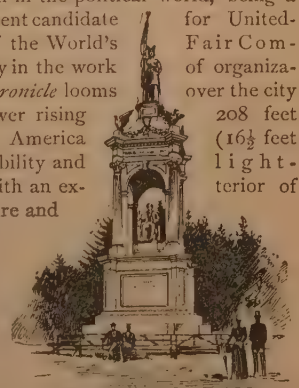
SAN JOSE: COURT-HOUSE.

The statues of California include W. W. Story's bronze memorial of Philip Barton Key, erected at San Francisco in 1888; D. C. French's heroic statue of Thomas Starr King; Mead's Columbus before Isabella, in the Capitol at Sacramento; and statues of John Howard Payne, James A. Garfield, and Marshall, the discoverer of gold.

SAN FRANCISCO: THE SAN-FRANCISCO CHRONICLE.

The Newspapers of California include 86 dailies and more than 400 others. Of these 15 are in German, seven in French, four in Italian, three in Spanish, and two each in Portuguese, Scandinavian and Chinese.

One of the most conspicuous buildings of San Francisco is that in which the *Chronicle* of that city is housed. It is the first tall fire-proof structure erected on the Pacific Coast, and attracts attention, because its enterprising owner, M. H. de Young, by his bold act broke down a long-standing prejudice against high buildings, which was the outcome of the fear inspired by earthquakes. Since the erection of the *Chronicle* Building this fear has been entirely dissipated, and other ten-story edifices are being put up. Mr. de Young's enterprising character has been displayed throughout his entire career. He has made the *Chronicle* the foremost agency in the development of the Pacific Coast, and it now has a circulation exceeding 60,000. He is well known in the political world, being a member of the Republican National Committee and a prominent candidate for United-States Senator. He is also one of the Vice-Presidents of the World's Fair Commission, and has expended a great deal of his surplus energy in the work of organization. The great new building erected by and for the *Chronicle* looms over the city with impressive effect, with a massive bronze clock-tower rising 208 feet above the pavement, and bearing the largest dials in America (16½ feet across). The entire structure is a marvel of strength, stability and lightness; its wonderful frame-work of steel and iron uniting with an exterior of stone and brick to form an edifice proof at once against fire and earthquake.



SAN FRANCISCO: THE STAR-SPANGLED BANNER (OR KEY'S) MONUMENT.

Chief Cities.— San Francisco is the metropolis of the North Pacific, with almost the only good harbor from Mexico to Puget Sound, and seems destined to a great expansion, since it must always control the imports and exports and general markets of the Great Valley and Nevada. It is six miles from the Pacific Ocean, and occupies the point of a long peninsula, between the bay, the ocean, and the world-renowned Golden Gate.

PALO ALTO: LELAND STANFORD JR. UNIVERSITY.

Among the abrupt heights which diversify the site are the Mission Peaks, 925 feet high, and Russian and Telegraph Hills. The Golden-Gate Park has cost $1,000,000, and covers 1,013 acres, out to the ocean-shore; and the Cliff House and Seal Rocks and Sutro Heights are at Point Lobos, with the Presidio Reservation farther within the Golden Gate. San Francisco is growing rapidly, with 16 lines of cable-roads, steamboats to many points on the bay and rivers, and 50 steamships running to the Sandwich Islands, and the Pacific, Asiatic and Australian ports. The chief imports are sugar, tea, rice, and coffee. The City Hall, begun in 1871, has cost $4,500,000. This is a wonderfully cosmopolitan city, where almost every civilized language may be heard. Mexican infantry marches down the streets to celebrate the anniversary of the independence of Mexico; Italian societies commemorate the unity of Italy; the Chinese haul their divine dragon, 100 feet long, through the streets of their quarter (where 20,000 Chinamen dwell), amid an amazing din of fire-crackers, drums, cymbals and flutes; and Irishmen celebrate or contemn the Battle of the Boyne. The beautiful bay, lined with white cities and reflecting great mountain-ranges, is traversed by ocean-steamships, ferry-boats, and sailing vessels, from the unwieldy junks of the Chinese shrimpers and the lateen-sailed feluccas of the Maltese and Greek fishermen to the towering white canvas of the clipper-ships. The city has manufactories of iron, glass, woolens, blankets, cable and wire, flour, mining machinery, cordage, and sugar, employing 7,000 operatives, with a yearly product of $82,000,000. The grain-fleet ships 1,000,000 tons each year, and the value of the yearly imports and exports is $150,000,000, employing a large number of steamships and packets.

LOS ANGELES: ARMY HEADQUARTERS.

In San Francisco there has just arisen a period of grand and lofty buildings. After the *Chronicle* Building came the fine Mark Hopkins Building. The superb D. O. Mills Building is being erected at a cost of $1,250,000. It will be an office structure, designed with rich Southern feeling in its details. It will be ten stories high, 160 by 138 feet, the lower three stories of white Inyo marble, the upper seven of delicate creamy buff brick, and terra cotta of the same color. A main feature is an elegant sky-lighted rotunda, beautifully constructed of marble. Its appointments are to be unsurpassed in any office structure on the continent, and the Mills Building will remain for many years one of the notable sights of the Pacific Coast. Here, too, are the executive offices of the world-famous Wells, Fargo & Co.'s express and banking institutions, the express building being very attractive.

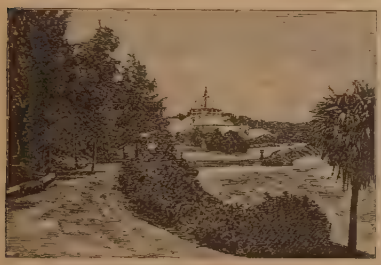
SAN FRANCISCO: THE D. O. MILLS BUILDING.

Sacramento, 83 miles from San Francisco, on the Sacramento River, is the State capital, and has the immense Pacific-Railroad shops, besides manufactories of pottery, flour, furniture, and woolens. It is the centre of a very productive fruit-region, and ships more green fruit than all the rest of the State. Oakland, seven miles from San Francisco, across the bay, is a beautiful suburban city, embowered in flowers and semi-tropical fruit-trees, free from the coast fogs, and sheltered by the Contra-Costa hills. Near it is Berkeley, the seat of the University of California.

The chief cities of northern California are Petaluma, Santa Rosa, and Napa, in the wine-producing valleys of the Coast Range; Grass Valley and Nevada City, in the foot-hills, with profitable gold-mines; Marysville, the metropolis of the Yuba country, once prolific of gold, and now of fruit; and Eureka, exporting lumber to the ports of the Pacific. Stockton is a famous wheat-market, with warehousing capacity of 100,000 tons. Here are electric cars, many mills, and a costly granite court-house. San José, 47 miles south of San Francisco, is an attractive modern city, with large parks, broad streets, seven newspapers, many factories, and a valuation of $12,000,000.

SAN FRANCISCO: WELLS, FARGO & CO.

Santa Barbara, 288 miles from San Francisco, is a famous watering-place, overlooking the Pacific, under the lee of the stately Santa-Ynez Mountains. The mission, founded in 1782, is still a Franciscan monastery. Immense vultures, or condors, with a spread of wings of twelve feet, haunt the Santa-Ynez. In this same region is Camulos, the scene of *Ramona*. Los Angeles, with its network of railroads and motor-roads, eleven banks and six parks, iron-works and other factories, is 16 miles inland. There are water-works, electric lights, and costly public buildings. The metropolis of Southern California was founded by twelve Spanish soldiers, who named it El Pueblo de la Reina de los Angeles, the Town of the Queen of the Angels. The mild and delightful climate of this valley has made it a sanitarium for thousands of Eastern people, whose pleasant homes are fast filling the region. The San-Gabriel Valley, 40 by ten miles in area, lies along the base of the Sierra Madre, and is occupied by ranches and villages, the chief of which is Pasadena, buried in orange-groves and rose-thickets, palms and pepper-trees, nine miles from Los Angeles and 25 miles from the Pacific. The wonderfully equable climate of this locality, and the magnificent scenery of the Sierra, have made it one of the foremost winter-resorts of the world, with great hotels and handsome villas. In midwinter rich flowers and fruits fill the gardens, from whose fragrant depths wild snow-storms may be seen whirling over the Sierra peaks. San Diego is 480 miles southeast of San Francisco, and within four leagues of the Mexican frontier. From 4,000 inhabitants in 1885 it rose to 30,000 in 1887, with all the modern metropolitan conveniences. The noble harbor is the seat of a large ocean commerce. The climate is remarkably equable, and thousands of pleasure-tourists come here, and to the beautiful trans-harbor suburb of Coronado Beach, whose hotel cost $1,200,000. Farther up the harbor National City overlooks the sea, with the villa-suburb of Chula Vista on the high red mesa beyond. San Diego is the oldest city in California, and the ruins of Father Junipero's mission of 1769 are still preserved near the Mexican suburb. A few miles back, at the mouth of a cañon, stands the famous Sweet-



SAN FRANCISCO: GOLDEN-GATE PARK.

RIVERSIDE.

water Dam, one of the largest in the world, with a curving wall of masonry 90 feet high and 46 feet thick at the base. The magnificent entrance to San-Diego Bay, the Silver Gate, leads into a safe and capacious harbor.

Railroads.—In 1856 the Sacramento-Valley Railroad began its works, from Sacramento to Folsom. It had 23 miles in 1860. The second road built was from San Francisco, and began running in 1863, and reached the State line in January, 1868, and Ogden in May, 1869. This triumph of modern engineering crosses the Sierra 7,042 feet above the sea. The Central Pacific is 274 miles long, from Oakland to the State line; and 872 miles to Ogden, where it meets the Union Pacific. Its Oregon Branch runs from Rosewell up the Sacramento Valley, by Marysville, Chico, and Tehama to the Oregon line (296 miles), and then down the Umpqua and Willamette valleys to Portland. Another line follows the western side of the Great Valley from Woodland to Tehama, 101 miles. Southward for 146 miles up the San-Joaquin Valley a single track runs from Lathrop, near Stockton, to Goshen, near Visalia, giving an outlet to the raisin-country.

The Southern-Pacific Railroad Company now in effect controls the lines from New Orleans to the Columbia River. After crossing Texas, New Mexico and Arizona, the line enters California at Yuma, and swings down along the San-Bernardino Mountains, to Los Angeles, Santa Monica and Santa Barbara. By its lines down the San-Joaquin Valley this route is prolonged to San Francisco and Oregon. The rails cross the Tahichipi Pass, where the Sierra Nevada and the Coast Range meet in a tangle of peaks, by one of the most famous and dexterous pieces of engineering in the world. Another section of the Southern Pacific runs from San Francisco to San Jose, Santa Cruz and Monterey, and then up the long Salinas Valley, amid the fastnesses of the Coast Range. The California Southern Railroad connects National City and San Diego with Oceanside, San Bernardino and Barstow, a line of 211 miles of track. The Atlantic & Pacific Railroad crosses the Colorado River at the Needles, and meets the Southern at Barstow, and the Southern Pacific at Mojave. This is the famous Atchison, Topeka & Santa-Fé route, practically beginning at Chicago, and traversing the great southwestern section of the Republic.

SAN FRANCISCO: THE PROPOSED NEW CITY HALL.

The Carson & Colorado narrow-gauge line comes down out of Nevada, in the tremendous volcanic and silver-bearing gorge between the Sierra Nevada and the Inyo Range, and stops at Keeler, on Owen's Lake. The lovely and serene valleys north of San Francisco are traversed by several railways, with a single strand flying far north to Ukiah.

SAN FRANCISCO: FIREMAN'S FUND INSURANCE CO.

Insurance.—The rapid development of property necessitated the forming of a local insurance interest; and in 1862 a number of San-Francisco gentlemen filed incorporation papers for an insurance company, which was organized during the following year. It took the name of the Fireman's Fund Insurance Company, designing to give a part of its profits to the charity fund of the local fire department. The Chicago fire inflicted on the company a loss of over $500,000; the Boston fire $200,000; and the Virginia-City fire, $164,000. All these disasters were promptly met; and the capital of the company has advanced from $200,000 to $1,000,000, with assets of $2,500,000. For the past 15 years this solid corporation has never skipped a dividend, and its name is favorably known in every city of the East, where it is represented by many active agents.

SAN FRANCISCO AND ITS HARBOR, AND THE GOLDEN GATE.

Finance.—The commercial banks of California have deposits amounting to $42,000,000; the savings banks hold $100,000,000. The State and its chief city, San Francisco, are practically out of debt.

The Pacific Bank of San Francisco is the oldest chartered commercial bank on the Pacific Coast, and has a capital and reserve of $1,800,000, and resources of above $5,000,000. Within 25 years it has paid to its stockholders $1,500,000 in dividends; and its stock is held at $180 a share. The business transacted by this institution exceeds $225,000,000 a year, and is constantly growing in volume. The bank was founded by a number of conservative capitalists, in 1863, during the period of wild speculation in mining stocks, and arrested attention immediately by refusing mining stock as collateral, and avoiding dealing with brokers and speculators in these stocks. Adhering to this brave policy, the corporation has advanced slowly but steadily, first under the leadership of Gov. Peter H. Burnett (from 1863 to 1880), and ever since under the presidency of Dr. R. H. McDonald, who is also famous as an enthusiastic worker in the temperance cause.

The extraordinary growth of California has resulted in the natural development of a State of great resources, aided very materially by the influx of well-to-do immigrants and investors from all over the United States. San Francisco is the great metropolis and financial centre of the Pacific Coast, and has developed an important line of business in the way of real estate. The leader in this strong department of Pacific-Coast commercial affairs is the representative firm of Easton, Eldridge & Co., the largest real-estate house on the Coast and the peer of representative houses in this line of business in the world. Their operations are included in the buying and selling of land, placing of capital for purchases or for loan, and subdividing of par-

SAN FRANCISCO; PACIFIC BANK.

SAN FRANCISCO: EASTON, ELDRIDGE & CO.

cels of property throughout the State (and in this department they have been identified with the leading colonization projects of the Pacific Coast). In the excursion department special trains are run to different points, that new-comers may view California at a moderate rate for transportation. The archives of the firm, which date back to the incorporation of the city, are open to inspectors. The management is Wendell Easton, President; George W. Frink, Vice-President; F. B. Wilde, Secretary; and the Anglo-California Bank of San Francisco, Treasurer. The firm has its principal offices in San Francisco, with ten departments in as many Californian cities, and 40 sub-agencies, with 200 employees. This vast and complicated business is conducted with a thorough system, and has achieved results of astonishing magnitude and success.

Nowhere else have so many extensive colonies been successfully planned and started as in California, much of whose prosperity is due to the scientific skill with which its settlements have been established.

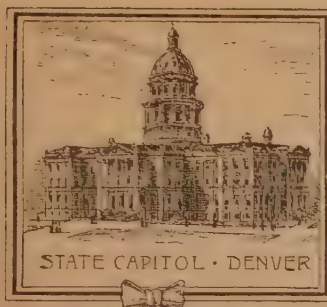
Among the interesting developments of Pacific-Coast industry connected with the sea is the plant of the Tubbs Cordage Company, covering sixteen acres in the Potrero Nuevo district of San Francisco. This business began away back in 1858, when Alfred L. and Hiram Tubbs united their energies for its upbuilding. The local demand for many years was largely supplied from these rope-walks, the first established on the coast, and equipped for the manufacture of all kinds of cordage, from the hemp of Manila, Sisal and New Zealand. In the Tubb works 200 men and boys are engaged, aided by ingenious hemp-spinning and other machines, whose patents are owned or controlled by the company. The Tubbs family are among the foremost representatives of the successful and conservative early settlers of California, and are identified with many of its leading social and commercial interests. Their industrial enterprise has been continuously successful.

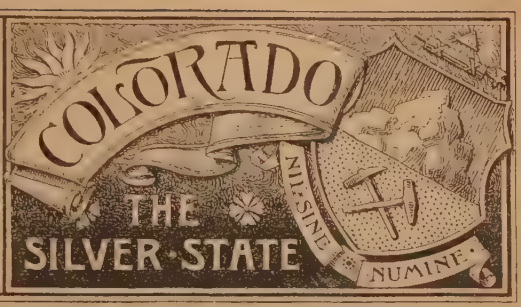
SAN FRANCISCO: TUBBS CORDAGE CO.

One of the great silk-mills of Belding Bros. & Co. has been established at San Francisco, and controls a large trade on the Pacific Coast.

San Bernardino is the capital of the largest county in the United States, much of whose area belongs to the hopeless Mohave Desert. The valley of 1,600 square miles near the shire-town brings forth abundantly of wine, grapes and oranges. Indio, below the sea-level, is celebrated for the astonishing cures of pulmonary troubles, wrought by its dry, pure air. The most recent development of settlement in California has taken place in the counties of Tulare and Fresno, in the southern part of the Great Valley, where an enormous product of raisins is already being harvested. The United-States Census Bulletin of 1890 on Viticulture, estimates that the yearly California raisin-crop of five years hence will reach from 8,000,000 to 10,000,000 boxes (of 20 pounds each). Tulare City, the metropolis of these two counties, stands on the Kaweah Delta, between the foot-hills and Tulare Lake, about midway between San Francisco and Los Angeles. The extensive irrigation-canals of Tulare and Fresno, and of the neighboring Kern County, are redeeming vast areas of the richest soil, in an absolutely frostless climate. The development of this domain adds greatly to the capacity of California for bringing forth the pleasant fruits of the earth.

SAN FRANCISCO: BELDING SILK FACTORY.





HISTORY.

"Colorado, rare Colorado! Yonder she rests; her head of gold pillowed on the Rocky Mountains, her feet in the brown grass, the boundless plains for a playground; she is set on a hill before the world, and the air is very clear, so that all may see her well."—JOAQUIN MILLER.

The first American to enter Colorado was Lieut. Zebulon M. Pike, U. S. A., who led a military exploring party here in 1806, soon after the Government had purchased Louisiana and an indefinite western region from France. He was captured by Spanish troops and taken to Chihuahua. Pike's Peak, for many decades the beacon of western civilization, will forever perpetuate his memory; and Long's Peak similarly honors Maj. S. H. Long, who explored parts of Colorado in 1820. About the year 1840 Mexico made a grant of a vast area of land in the Las-Animas region, to Cols. Vigil and St. Vrain; and a little later Bent established a trading-post on the Arkansas River. In 1844 Fremont explored North, Middle and South Parks, which were afterwards visited by a few French fur-traders.

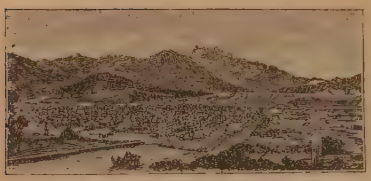
Colorado west of the Continental Divide belonged to Mexico, and was ceded to the United States in 1848, and became part of the new Territory of Utah. Colorado east of the Divide lay in the huge province of Louisiana, a part of New France, ceded to Spain in 1763, restored to France in 1801, and sold to the United States in 1803. From then until 1812 it lay in Louisiana Territory; after that in Missouri Territory; and from 1854 in Nebraska and Kansas Territories. The region south of the Arkansas River belonged to the Republic of Texas from its foundation until it became merged in the United States, when part of it was annexed to New Mexico, and part to Kansas.

STATISTICS.

Settled at	Conejos.
Settled in	1840
Founded by	Mexicans.
Admitted to the U. S.,	1876
Population in 1860,	34,277
In 1870,	39,864
In 1880,	194,327
White,	191,126
Colored,	3,201
American-born,	154,537
Foreign-born,	39,790
Males,	129,131
Females,	65,196
In 1890 (census),	412,198
Population to the square mile (1880)	1.9
Voting Population,	
Vote for Harrison (1888),	50,774
Vote for Cleveland (1888),	37,567
State Debt,	0
Assessed Valuation of Property (1890),	$189,000,000
Banks,	
Deposits,	
Savings Banks,	
Deposits,	
Area (square miles),	103,925
U. S. Representatives (1893),	2
Militia (Disciplined),	780
Counties,	55
Post-offices,	682
Railroads (miles),	4,291
Capital,	
Gross Yearly Earnings,	
Manufactures (yearly, 1880),	$14,260,159
Operatives,	5,074
Yearly Wages,	$2,314,527
Farm Land (acres, in 1880),	1,126,585
Farm-Land Values,	$25,109,223
Farm Products (yearly),	$5,000,000
Colleges and Professional Schools,	4
School-Population,	85,824
School-Attendance,	35,567
Newspapers,	276
Latitude,	37° to 41° N.
Longitude,	102° to 109° W.
Temperature,	—37° to 105°
Mean Temperature (Denver),	48°

TEN CHIEF PLACES AND THEIR POPULATIONS. (Census of 1890.)

Denver,	106,713
Pueblo,	24,558
Leadville,	10,384
Colorado Springs,	11,140
Trinidad,	5,523
Highlands (town),	5,161
Aspen,	5,108
Boulder,	3,330
Bessemer (town),	3,317
Canon City,	3,825



COLORADO SPRINGS, AND PIKE'S PEAK.

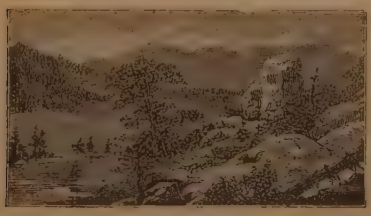
As early as 1852, wandering Cherokees discovered gold near the foot-hills; but it was not until 1858 that W. Green Russell's party of Georgians, and a company from Kansas, began to wash gold from the sands of the South Platte River. In May, 1859, John H. Gregory discovered gold at Black Hawk. When the news of these treasures of the mountains reached the East, a vast and tumultuous migration began across the untrodden plains, and the serene and lonely Pike's Peak became the magnet of thousands of brave adventurers.

In 1861; in order to make up the new Territory of Colorado, nearly 70,000,000 acres were taken from Utah, New Mexico, Kansas and Nebraska, the foresight of Gov. Gilpin securing the western slope of the Rocky Mountains. The constitutions drafted in 1859 and 1863 were rejected by the people; but in 1865 they adopted one, and Congress passed a bill admitting the Territory to the Union. President Johnson vetoed this document, and for eleven years longer the people remained under a Territorial government. When the late civil war broke out Colorado sent into the National army two regiments of cavalry, a regiment of infantry and a battery, besides raising considerable forces for home-defence. Threatened by Confederates on one side and Indians on the other, many pioneers returned to the East, and ambitious cities vanished. Sibley's Confederate invasion of New Mexico, in 1861, had for its chief object an advance to the Platte Valley and the occupation of the forts as far north as Laramie. Thus the Pacific States would be cut away from the Republic, and the overland routes closed. This deadly peril was averted by the Colorado volunteers, who did not wait for the invaders to reach their country, but advanced into New Mexico, and met and checked the triumphant Confederates at La Glorietta (Apache Cañon).

GRAY'S PEAK.

After the war a new tide of immigration flowed into the Territory, and developed its resources rapidly and securely. The Ute Indians, formerly sole lords of the domain, were concentrated upon the White-River, Uncompahgre and Southern Reservations, whence most of them have been removed to Utah.

The name *Colorado* is the past participle of the Spanish verb, *colorar*, "to color," with a secondary meaning of "ruddy" or "blushing"; and was originally applied by the Spaniards to the Colorado River, whose water is red in hue, when swollen by heavy rains, from the disintegration of the reddish soils through which it flows. A popular nickname of Colorado is THE CENTENNIAL STATE, because it was admitted to the Union in the hundredth year after the signing of the Declaration of Independence. It is also called *The Silver State*. The older title of *The Buffalo-Plains State* is now meaningless, since the extinction of the bison. The people living here used to be called *Pike's-Peakers*.



LONG'S PEAK.

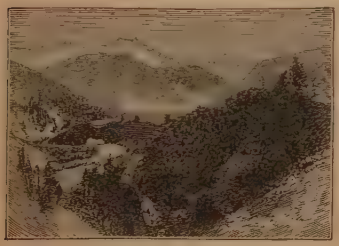
The Arms of Colorado include a shield, with a miner's pick and mallet crossed, and a range of snowy mountains. The motto is NIL SINE NUMINE, Latin words meaning: "Nothing without God."

The Governors of Colorado have been: *Territorial:* Wm. Gilpin, 1861–2; John Evans, 1862–5; Alex. Cummings, 1865–7; A. Cameron Hunt, 1867–9; Edward M. McCook, 1869–73; Samuel H. Elbert, 1873–4; John L. Routt,

1874–6; *State:* J. L. Routt, 1877–9; F. W. Pitkin, 1879–83; Jas. B. Grant, 1883–5; Benj. H. Eaton, 1885–7; Alva Adams, 1887–9; Job A. Cooper, 1889–91; and J. L. Routt, 1891–3.

SIERRA BLANCA.

Geography.—Colorado covers an area equal to New England and Ohio combined. Its three chief divisions are the Plains, the Foot-hills, and the Rocky Mountains. The Great Plains ascend from Kansas to the Foot-hills, a vast open region of low ridges and valleys, and at a general height of 5,000 feet above the sea. Everywhere the face of the country is covered with gorgeous wild flowers; and modern irrigating processes are converting it into a rich garden of agriculture. The Divide is a ridge 7,500 feet above the sea, running eastward from the Front Range, and separating the Platte and Arkansas waters. The Great Plains were originally treeless, save where belts of cottonwoods and aspens followed the courses of the rivers; but since the advance of population hitherward, myriads of trees have been planted along the bare uplands. The Foot-hills run north and south, from 30 to 50 miles wide, with a height of from 6,500 to 8,000 feet, diversified and broken in their outlines, and generally abounding in timber and water. They contain many fertile valleys and grazing districts, and are rich in minerals, clays, and building stone.



SULTAN MOUNTAIN.

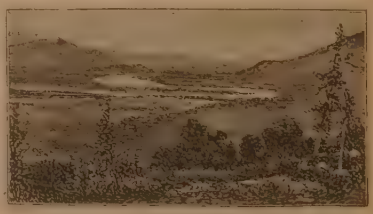
The Rocky Mountains form the Continental Divide, or water-shed, and traverse Colorado from north to south and southwest, with many tributary ranges. This magnificent labyrinth has two-score peaks of above 14,000 feet, and nearly 200 exceeding 13,000. For 150 miles north and south, from Gunnison to North Park, the mountain-mass is 120 miles wide, and includes the Front, Park and Saguache Ranges. The Front Range is the eastern line of peaks, visible for scores of miles over the lonely plains toward the Mississippi, and forming a vast and impressive line of mountains, broken by several summits which over-tower the great wall. It is 120 miles long, beginning on the south at the famous Pike's Peak. The Ute, Loveland, Berthoud and Boulder Passes cross at high altitudes. Mounts Evans, Rosalie, and Torrey, and Gray's Peak (14,341 feet) and Long's Peak (14,271), are the signal points of this noble range; and Mount Audubon, James Peak, the Arrapahoe Peaks and others are hardly less lofty. Pike's Peak (14,147 feet high) for many years gave its name to all Colorado. Its summit is reached by a long carriage-road, and also by a mountain-railway, built in 1890; and is the seat of a station of the U.-S. Signal Service. The views from this point, and from the oft-ascended Gray's, Long's and other peaks, are of immense extent and amazing grandeur. Across the great elliptical bowls of the parks is the Park Range, running from beyond Hahn's Peak, in the north, south to the Arkansas Valley, and culminating around Mount Lincoln and Quandary Peak, of above 14,000 feet each, and surrounded by twenty other crests exceeding 13,000 feet. The Blue-River Range, twenty miles north, has a line of tremendous peaks, culminating in Mount Powell.

GRAND CANON OF THE ARKANSAS.

The great continental water-shed between the Atlantic and

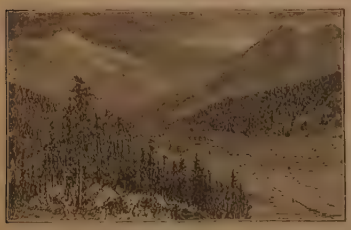
Pacific follows the Front Range south to Gray's Peak, and then bends westward for 20 miles, between Middle Park and South Park, including the Tennessee Pass (10,418 feet high), and then merging into the Saguache Range, the Colorado extension of the Sierra Madre of Mexico. This range has a height of above 13,000 feet for 80 miles, terminating on the north at the majestic Mountain of the Holy Cross. It is a vast mass of granite, nearly a score of miles broad. The Saguache is one of the loftiest and most conspicuous of the Rocky-Mountain ranges, and its dominating peaks exceed 14,000 feet in height, rising in bristling groups around passes above 12,000 feet high. On the east is the rugged valley of the Arkansas; and the Gunnison Valley opens away to the westward. The Mountain of the Holy Cross bears on its side two snow-filled ravines, cutting each other at right angles, and forming a vast cruciform deposit of glittering snow, visible from a great distance. The trappers and explorers of the early days gave its name to this noble mountain. Near Buena Vista rise the three college peaks, Harvard (14,375 feet), Yale (14,263) and Princeton (14,196). Between Holy Cross and Harvard, Mount Massive, Mount Elbert and La-Plata Peak each rise above 14,000 feet; and Antero, Ouray and other peaks in the south also exceed this height. South of the Saguache, beyond the Marshall Pass, the Continental Divide runs for 75 miles southwest over a plateau, by the Cochetopa Hills, and then rises into the Sierra San Juan, passing southeast to the San-Luis Park, with many peaks above 13,000 feet high.

MOUNTAIN OF THE HOLY CROSS.



MIDDLE PARK.

The Sangre-de-Cristo Range is almost a continuation of the Saguache, from which it is separated only by the Poncho Pass, 9,000 feet high. Its magnificent Sierra Blanca is the loftiest summit in the Rocky Mountains, reaching an altitude of 14,463 feet, in white granite pinnacles amid snow and ice. Beyond the Veta Pass, and continuous with the Sangre-de-Cristo, the Culebra Range descends into New Mexico, ending near Santa Fé. The high Raton Hills run eastward from the Culebra, along the New-Mexican line. A few leagues north a short range pushes out towards the plains, culminating in the majestic cones of the Spanish Peaks, long ago the landmarks for wayfarers and caravans on the Santa-Fé trail. Elsewhere the Greenhorn Range shelters Pueblo; the Rampart Range runs north from Pike's Peak; and the Sierra Mojada (or Wet Mountains) runs northeast from the Huerfano River, including the Rosita and Silver-Cliff mining districts. The Uncompahgre Mountains in southwestern Colorado begin at the tremendous volcanic crest of Uncompahgre Peak (14,235 feet), and are prolonged by the Sierra La Plata, to the cañons of the Rio Mancos. This wild region has ten summits of above 14,000 feet. The Elk Mountains run southwest 30 miles from the Saguache Range, a vast, confused and contorted volcanic upheaval of strata, with a lofty line of pinnacles ten leagues long. Among the most famous crests are Castlepeak (14,106 feet high), Maroon (14,000), Capitol (13,992), Snowmass (13,961),



FREMONT PASS.

Whiterock (13,847), Sopris (12,972), and Gothic (12,491). A number of the mining towns are at great altitudes among the Rockies. Caribou's elevation is 9,905 feet; Georgetown's, 8,514; Leadville's, 10,247; and the Present-Help Mine (on Mount Lincoln), 14,200. There are at least a dozen villages above the altitude of 10,000 feet, including Alma, Alicante, Fairplay, Kokomo, Mineral City, Montezuma, Montgomery, Summit Mines, Animas Forks, Irwin, Robinson, and Ruby Camp.

GRAND-RIVER CANON.

The parks of Colorado are ancient lake-basins, walled in by stupendous mountain-ranges, and composed of beautiful undulating regions of dells and hillsides, with bright lakes and streams, shadowy woods, and a varied and abundant vegetation of forests, flowers and grasses. They run nearly the whole length of the State, just west of the Front Range, with an average width of 50 miles, and are separated from each other by high mountains. The wildest and least inhabited of these great sierra-girt valleys is North Park, whose 2,500 square miles of wooded hill-sides and meadows of buffalo-grass and sage-brush lie alongside of the Continental Divide. The North Platte River takes its rise here, amid forests haunted by deer and antelopes, wolves and bears; and flows into Wyoming, where part of North Park lies. Southward, across the narrow and lofty Continental Divide, Middle Park covers 3,000 square miles of pleasant vales and wooded hills, 9,000 feet above the sea, and environed on three sides by magnificent snowy ranges, Long's Peak, Gray's Peak, and their lofty brethren. Middle Park forms Grand County, whose shire-town is on the shore of the deep Grand Lake, amid the frowning defiles of the Front Range. South Park, the most attractive of the series, is a lovely vale 40 miles long, walled in by the Rampart Range on the east and the snowy Park Range on the west, and watered by the silvery streams of the South Platte. This mountain-girt amphitheatre, with its wonderful variety and richness of scenery, is traversed by several railways and dotted with villages, mines and farms. Its average height is 9,000 feet above the sea.

CHICAGO LAKE.

The San-Luis Park covers 9,400 square miles, walled in by the Sangre-de-Cristo and Culebra ranges on the east, and on the west by the Sierra San Juan. Here the Rio Grande del Norte takes its rise, amid noble forests. The settlers are Mexicans and New-Englanders. The northern part is called the Rincon, and has a broad lake and a savanna, fed by a score of mountain-torrents, and surrounded by leagues of peat. This upper and wider section of the park abounds in dead lakes and failing streams, and its sandy soil can be cultivated only under artificial irrigation. The Saguache, Carnero, La Garita and other streams pour their mountain-born waters into the San-Luis and other small lakes without outlets.

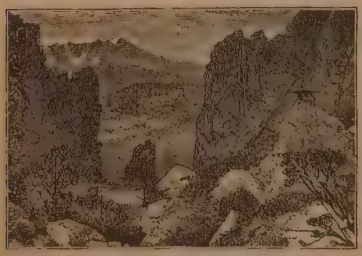
MARSHALL PASS.

The valley of the Grand and Gunnison rivers and Roaring Fork received their first pioneers in 1880, trudging on the rude trail over the Rocky Mountains, and bearing their flour and provisions on their backs. Since then this vast area has developed

greatly, having inexhaustible fields of coal, iron, lead, copper and silver, and large areas of rich soil.

The rivers of Colorado are unnavigable torrents, flowing down out of the mountains, with flashing cascades and other beauties. Here the Platte, Arkansas, Rio Grande and Colorado are born, and the Republican and Smoky-Hill Forks of the Kansas. On the east the waters are skillfully availed of for the irrigation of the otherwise arid plains. The North Platte gathers its waters from the Continental Divide in North Park. The South Platte is born at Montgomery, on Buckskin Mountain, 11,176 feet high, and crosses the South Park, descending 6,000 feet before reaching Denver. The springs of the Arkansas are in the Tennessee Pass, and for scores of miles it flows like a silver thread at the bottom of a cañon over a thousand feet deep, culminating at the Royal Gorge, near Cañon City. The Arkansas flows across the Plains southeast for 500 miles in Colorado, receiving the waters of the Greenhorn, Huerfano, Apisha, Purgatory, Cimmaron, Fontaine-qui-Bouille and fifty other streams. The Purgatory River traverses a wonderful cañon 50 miles long, with walls 800 to 1,000 feet high, amid whose gloomy shadows (if tradition may be believed) an entire Spanish regiment was lost. The Rio Grande del Norte rises in the Sierra San-Juan, and flows east and south through the San-Luis Valley, and into New Mexico. Routt County, in the northwest, is traversed by the Yampah River for 100 miles, rising in the Park Range, and at last rushing through the dark Yampah Cañon, into Green River. Grand River flows from Middle Park 350 miles southwest through the weird Plateau country, receiving the Gunnison and Dolores, and then uniting with the Green River to form the Colorado of the West. White River lies between the Yampah and Grand, amid the singular and deeply interesting formations of the City of the Gods and the Cathedral Bluffs. The Animas, Mancos and other tributaries of the San Juan drain the chaotic mountains of southwestern Colorado into the Colorado River. In this remote region, along the Hovenweep and McElmo, are found the ruined houses and watch-towers of the long-extinct cliff-dwellers, driven ages ago to these holes in the precipice-walls by deadly enemies, Aztecs or Apaches. Some of the ruins are 700 feet long, constructed of massive blocks of stone, or cut, with vast labor, from the live rock.

NEEDLE PEAKS, ANIMAS CANON.



GARDEN OF THE GODS, AND PIKE'S PEAK.

Much of the finest scenery of the Atlantic slope of Colorado occurs in the wonderful cañons which the streams have cut in the sides of the mountains, with perpendicular granite or sandstone walls. Boulder, Cheyenne, Clear-Creek, Grape-Creek and other cañons are famous for their remarkable scenery, and the Grand Cañon of the Arkansas is even more impressive and wonderful. West of the main range, the streams flow in the bottoms of yet more prodigious cañons, with rock-walls half a mile or more high, generally nearly precipitous, and sometimes even overhanging their bases. The Black and Grand Cañons of the Gunnison, the long gorge of the Uncompahgre, and the deep trench in

BLACK CANON, AND CHIPETA FALLS.

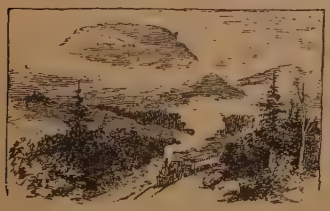
which the Rio Dolores flows, are remarkable for their extent and grandeur. High up among the sunlit peaks many crystalline lakes reflect the clear sky and the granite spires above them, and send their bright waters plunging and murmuring down the rugged cañons. Near Georgetown is the deep emerald expanse of Green Lake, with Clear Lake above it, and Elk Lake at the edge of the timber-line. The Twin Lakes, 14 miles from Leadville, lie at the base of the lofty Mount Elbert, 9,357 feet above the sea, and their unusual beauty has caused the erection of a settlement of summer-hotels and cottages on the shores. The five Evergreen Lakes mirror the huge sides of Mount Massive; and the crag-bound Chicago Lakes spread their transparent waters high up near Mount Evans, the uppermost of them being 11,434 feet above the sea, and perpetually frozen. Palmer Lake, on the Divide, midway between Denver and Pueblo (7,238 feet high), has on its shore a pleasant health-resort village and sanitarium.

ROYAL GORGE.

Vast areas of white and yellow pine, hemlock and cedar still remain on the mountains. The abundant scrubby piñons and junipers of the foothills and plateaus are useful only as fuel. The ridges and mountains are covered with noble evergreen trees, up to 9,000 feet, and thin and distorted trees for 3,000 feet higher, or up to the timber-line, above which the peaks are bleak rocks, with slight patches of grass and alpine flowers. The wild animals of the highlands include bears, wolves, panthers, wildcats, antelopes, elk, deer, beaver, otter and wild fowl. On the plains millions of prairie-dogs dwell, with deer, wolves, hares and other game, yearly dwindling away.

GREEN LAKE.

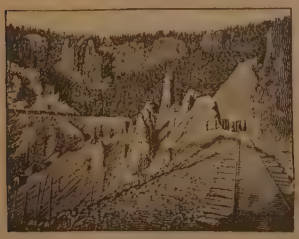
The Climate of this great mountain-realm naturally has a wide diversity, from the high summer-heats of the plains to the perpetual snows of the main range. The east winds are damp and cold; the west winds, though blowing across hundreds of leagues of snowy ranges, are warm and dry. As a rule, the nights are cool and (on the Atlantic slope) dewless, even when the days reach 90°. The foot-hills have hot summers, with cool nights, and mild winters, with snow seldom abiding long. The mean temperature at Denver is, in winter, 30.3°; spring, 48.7°; summer, 69.7°; and autumn, 50.7°. Changes are frequent and sharp, but the dryness of the air mitigates their severity. From November to March snow may come, and thence till the close of summer short rain-showers refresh the country. More than 300 days in each year are either clear or partly clear. From July to October the sky is bright and cloudless, and the air is pure, sweet and exhilarating. "An air more delicious to breathe cannot anywhere be found," says Bayard Taylor. This climate is favorable to health and vigor; and the pleasant country of the foot-hills is a great and beneficent sanitarium, especially for sufferers from bronchial and pulmonary complaints. These diseases are arrested in the dry highland air; and many Eastern people now enjoy good health in Colorado who would have died if they had remained in their old homes. It is necessary for most invalids to avoid high altitudes, and remain at the health-resorts below the line of 7,000 feet. The electric air excites the nervous



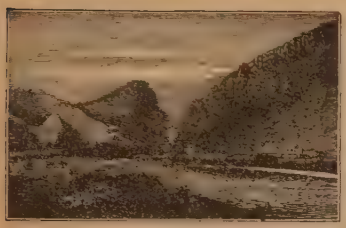
VETA PASS.

systems of newcomers to a high tension, producing a sort of intoxication of good health, with keen appetite, perfect digestion and sound sleep. The great highland sanitarium of Colorado is endowed very richly with medicated mineral and thermal springs, many of which are provided with hotels and bath-houses. The beautiful and salubrious city of Colorado Springs was founded in 1871, and is 6,000 feet above the sea, and ten miles east of Pike's Peak, with shielding mountain-walls on north, west and southwest, and a sea-like expanse of the plains opening on the east and south. This famous climatic health-resort illustrates its culture by the El-Paso and Colorado-Springs Clubs, the Country Club, the University Club, twelve churches, a choral union, the best of schools, a theatre, and an absolute prohibition of liquor sales. In the vicinity are those wonders of nature, the Cheyenne Cañons; Glen Eyrie, and Blair Athol, with their fantastic and bright-colored rocks; the Garden of the Gods, with miles of weird and storm-worn pinnacles and towers of red sandstone, some of them above 3,000 feet high, "a symphony in red and yellow;" and Monument Park, crowded with sculptured rock-figures of great variety. Five miles nearer the mountains lies the famous health-resort of Manitou, with its soda, iron, seltzer and sulphur springs (like those of Ems), attracting 100,000 persons a year to the adjacent hotels. The caverns near Manitou contain great halls and corridors, adorned with stalactites; and the cañons and rock-sculptures all around afford continual interest. This sunny cove in the mountains lies at the mouth of the Ute Pass, in a wonderfully stimulating air. Idaho Springs rush from the base of Santa-Fé Mountain, near the head of the beautiful Clear-Creek Cañon. There are both hot and cold waters, used in various forms of baths, and the analysis shows ingredients like those of the Carlsbad springs. This locality is much visited by consumptives, who find healing in the medicinal fountains. Cañon City, near the picturesque Grape-Creek Cañon and the Royal Gorge of the Arkansas, has soda springs and hot springs. The Boulder saline water enjoys a large sale throughout America and Europe. There are valuable springs at Morrison, a fashionable mountain-resort 20 miles from Denver, and near Bear Cañon and the Garden of the Angels. Springdale, ten miles above Boulder, has tonic iron waters. The Haywood and Cottonwood Hot Springs, near Buena Vista, are visited by thousands of health-seekers. In the narrow Wagon-Wheel Gap, where the upper Rio Grande roars down through a palisaded cleft in the mountains, are hot and cold soda and sulphur springs, with a large hotel and bath-houses. The Soda Springs near Leadville are under the shadow of the Saguache Range. Poncho Hot Springs, near Salida, form a group of 55 sources of clear, odorless and tasteless water, with hotels and bath-houses and a great number of visitors. Pagosa Springs, between the Sierra San-Juan and the grassy plains of New Mexico, bubble up in a great rocky basin, and supply purgative alkaline waters of high medicinal value. They have a temperature of 140°; and the steam from the basin can be seen for miles, in cool weather. Glenwood Springs are ten in number, pouring out every minute 8,000 gallons of warm water, powerfully medicated, alkaline, saline, sulphurous and chalybeate, some of them in hot vaporous caves near the Grand River, and others

GLENWOOD SPRINGS.



PHANTOM CURVE.



WAGON-WHEEL GAP.

provided with large bath-houses. Shaw's Magnetic Springs are near Del Norte. Trimble's Hot Springs and the Pinkerton Springs are near Durango. Estes Park, 60 miles from Denver, and 4 by 6 miles in area, is a beautiful pleasure-resort of the Coloradians, close to Long's Peak. Near the hotel a group of medicinal springs pour forth their healing waters. The Hot Sulphur Springs, six in number, boil out from the base of a cliff at the head of Troublesome Cañon, in Middle Park, and are provided with baths. Higher up in the mountains several soda springs pour out their effervescing waters. South Park contains a group of saline and alkaline springs, and also Hartzell's Hot Sulphur Springs. Steamboat Springs, in Routt County, form a group of eighty hot fountains, at the foot of the Park Range.

Agriculture has not until lately assumed commanding proportions in Colorado, owing partly to insect pests, aridity of climate, and early and late frosts. The farmers have found out how to check the grasshoppers and other winged devourers. The aridity of the soil has been overcome by artificial irrigation, by whose aid over 3,000,000 acres are now under profitable cultivation, with an area increasing every year. Thirty-five thousand miles of canals and ditches are now in operation, and $10,000,000 has been spent in their construction. One of these canals takes water from the Cache-à-la-Poudre River, and carries it for 54 miles over the dry plains of Larimer and Weld, irrigating 120,000 acres. The canals running from the perennial mountain-streams are tapped by smaller lateral ditches leading to the higher slopes of the farms, and minor ditches reach the fields, which are in turn gridironed by plough furrows. When the land needs water, the gates of the laterals are opened and crystal streams flow down the field-ditches, and are admitted into the furrows by taking away a shovelful of earth from each one. In a brief hour the land is refreshed as from a prolonged soaking rain. The amount needed varies from 50 to 75 cubic feet an acre, for the season, costing less than $2 in all. The State is divided into five water divisions, each under a superintendent of irrigation; and the divisions are sub-divided into water districts, each with a water commissioner. These officials, under the supervision of the State engineer, distribute the waters according to priority of rights.

CURRECANTI NEEDLE.

The farm-products even now exceed $12,000,000 a year, and include 3,000,000 bushels of wheat, making a very white and dry flour, 2,000,000 of oats, 1,500,000 of corn, 200,000 of barley, 3,000,000 of potatoes, 400,000 tons of hay, $400,000 worth of dairy products, 500,000 pounds of honey, and all manner of vegetables, grapes, berries, and hardy fruits. There are half a million apple-trees. Peaches flourish west of the mountains; and part of the Arkansas Valley is famous for its watermelons and grapes. Alfalfa has become the leading farm-product, and is even crowding out wheat. The crop was 1,000 tons in 1880, 1,000,000 in 1888, and 3,000,000 in 1889. It is a tenaciously hardy clover, with long tap-roots, and yields three cuttings a year, each of nearly two tons an acre. This enormous crop is all kept in the State, and fed to the live-stock, being the best of beef-producing foods.

CATHEDRAL ROCK.

ALPINE PASS.

Timothy, orchard and blue grass also produce three to four tons to the acre yearly.

Stock-raising has long been a leading industry of Colorado, where domestic animals do not require shelter or feeding in winter, howbeit occasionally a severe season kills many range animals. The grasses are nutritious and abundant, and the cattle thrive on the dry natural hay. Latterly, the Great Plains have been occupied by the farmers, and the cattle, restricted to the poorest ranges, are moving elsewhere. Two thirds of the herds are on the farms, where agricultural and stock-raising interests are blended, as in the older States, and the animals are more carefully fed and looked after in winter. The quality of the cattle has been greatly improved by importing thoroughbreds and crossing Short Horns and Polled Anguses with the Texan animals. The number of cattle in the State exceeds 1,500,000. Sheep-raising employs $5,000,000 capital. The drought of 1880 and the repeal of the *ad-valorem* duty on wool gave severe blows to this industry, but the flock-masters still count 2,000,000 sheep, and send 10,000,000 pounds of wool to the Eastern markets yearly.

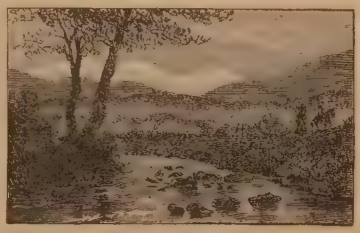
LOOP NEAR GEORGETOWN.

Mining began with the discovery of gold placers, in 1858, near Denver, and enormous profits have since been realized. The Small-Hopes mine paid $3,000,000 in two years; and many others reached an equal productiveness. Placer-mining was succeeded in 1870 by hydraulic mining, and this a few years later by the sulphurets and tellurides. The Ouray and San-Juan mines yield free-milling gold. West of 105° the vast mountains are banded with veins of silver and lodes of gold, of incalculable value. From the rich chlorides of Silver Cliff to the great argentiferous mountains around Silverton, and from the native gold of Boulder to the fine copper of Unaweep, extend the great treasuries of the hills. The bullion production of Colorado has passed $300,000,000. In the five years, 1880-1-2 3 4, it exceeded $100,000,000. The Leadville district in 1878 9-80-1-2, turned out $68,000,000; and little Gilpin County has yielded $32,000,000 in gold. Silver-mining was not much heeded during the golden age of Colorado, but now it is the second silver-producing State, and turns out four times as much silver as gold. There are 1,200 stamps, forever hammering away at gold and silver ore, in the mining camps. The Leadville product holds above $12,000,000 a year, mainly in silver, and the smelters and roasters are kept busy with their rich carbonates of lead and silver. Upwards of $60,000,000 in ore is in sight at Leadville, and the miners profess to be discouraged "because they have to dig through four feet of solid silver to get down to the gold." The Aspen mines have sent out millions of dollars' worth of ore. The city of Aspen, with its 5,000 inhabitants, five churches, electric lights and brick blocks, nestles in a cup-shaped valley 7,500 feet above the sea. Upwards of $50,000,000 worth of lead and $6,000,000 worth of copper have come from the Colorado hills, almost

DOME ROCK.

entirely from gold and silver bearing ores. The lead exported reaches an average of over a thousand tons a week, mainly from the Leadville region. The iron of Colorado occurs mostly in hematite and magnetite ores, with 60 per cent. of metal, and covers great areas. It is stated by scientific explorers that Gunnison County alone has a supply of iron equal in extent to all that of Pennsylvania.

The coal-fields cover 40,000 square miles, the seams averaging about five feet in thickness. The 50 working mines employ 5,400 men. The output of coal rose from 8,000 tons in 1869 to 2,400,000 at present. Much of the Colorado coal is bituminous, but large areas of pure anthracite have been opened near Glenwood Springs and New Castle. Lignite beds follow the eastern base of the mountains for 200 miles. Petroleum was discovered at Florence, just below the Grand Cañon of the Arkansas, in 1882. There are 25 wells in that district, producing 140,000 barrels of illuminants and 160,000 barrels of lubricants.



ESTES PARK.

Of late years large quarrying industries have arisen in the ridges outside the foot-hills. The Union Pacific Railroad has sandstone quarries at Lyons, and others in and around Stout. The Marble-Glen quarries, near Fort Collins, contain inexhaustible supplies. Sandstones are found in great variety, the white of Manitou, the red and white of Morrison, the pale green of Cañon City, the pink and yellow of other localities, and the great quarries of Trinidad. Marble occurs in white, black, pink and variegated colors. Colorado City has an inexhaustible quarry of red sandstone; Hancock and Pine Creek, gray granite; Nathrop, lava; Calumet, dolomite and marble; and Colorado Springs, gypsum, supplying the Rocky-Mountain district with plaster of Paris and cement.

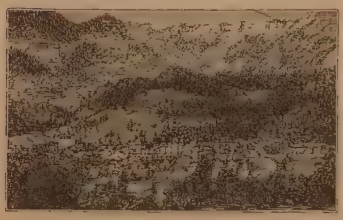
Government.—The Colorado State House at Denver is a handsome modern building of Gunnison granite. When completed it will have cost over $1,500,000. The State institutions include the Insane Asylum, at Pueblo; the Institution for the Education of the Mute and the Blind, at Colorado Springs; the State Reform School, at Golden; and the Penitentiary, at Cañon City.

IDAHO SPRINGS.

The public schools are of high grade and efficient organization. Nearly $4,000,000 are invested in school property; and the State holds 3,000,000 acres of school-lands, whose sale will afford a great educational fund. The Normal School is at Greeley. The University of Colorado, endowed by Congress, the State and citizens of Boulder, was incorporated in 1860, and opened at Boulder in 1877. It has 21 instructors and 31 collegiate students, besides 120 in other departments. The State School of Mines, at Golden, has 46 students. The Agricultural College, at Fort Collins, has 130 students. The Presbyterian College of the Southwest, at Del Norte, and Denver University (Methodist) have opened within ten years. Colorado College, at Colorado Springs, dates from 1874. There are small medical schools at Denver and Boulder. The Rocky-Mountain University, of Denver, received incorporation in 1887, and has a successful medical college. The great Jesuit college, at North Denver, occupies a noble building, erected at a cost of $500,000. Wolfe Hall and Jarvis Hall are flourishing Episcopal schools at Denver. The

National Government maintains an Indian school at Grand Junction. The chief United-States military post in Colorado is Fort Logan, near Denver. The ancient border stronghold of Fort Lyon was evacuated in 1890. Fort Crawford is a garrisoned post near Montrose; and Fort Lewis, near Durango, guards the Ute reservation.

The Railways of Colorado are famous for their bold engineering, and their wonderful achievements in the passage of lofty mountains and unparalleled gorges. They have been built in advance of population, and the rapid growth of the State is in part due to their agency. Eight lines enter from the east; five go into the mountains; and one crosses the western border into Utah. The Union Pacific has 1,272 miles in the State. The Burlington & Missouri-River Railroad runs from Denver into Nebraska. The Chicago, Rock-Island & Pacific Railroad runs east to Kansas and beyond. The Missouri Pacific starts east from Pueblo. The Denver, Texas & Fort-Worth Railroad runs from Denver across the Pan Handle of Texas, and at Fort Worth meets the network of Texan railways.



OURAY.

The Denver & Rio-Grande Railroad is peculiarly a Coloradian enterprise, with Denver and Española (near Santa Fé) as its termini, and many branches. This line crosses the Veta Pass and the San-Luis Park, turning north to Silverton. It traverses the famous Toltec Gorge, where the line is carried high along the face of a tremendous precipice, with the river foaming far below. Animas Cañon has also been penetrated by its locomotives. The line from Pueblo to Salt Lake-City is one of the most wonderful scenic routes in the world, and traverses the Grand Cañon of the Arkansas, on rocky shelves far above the whirling waters. Ten miles of this track cost $1,400,000, being one of the most expensive sections of railway in the world. The workmen were suspended over the cliffs by ropes, while blasting the rock to get foot-hold. This route crosses the lofty Marshall Pass, with an almost spiral pathway of iron loops ascending through the continental surges of granite and snow; and traverses the dark cañons of the Gunnison and Uncompahgre, and the weird Book Plateaus. The Rio-Grande line crosses the Fremont Pass, 11,540 feet above the sea; the Tennessee Pass, 10,340; and the Marshall Pass, 10,560. Alpine Tunnel, 11,623 feet above the sea, and 1,773 feet long, is the loftiest railroad construction in North America. The perpetual snow-banks send their waters on one side to the Atlantic, and on the other to the Pacific. The line crosses the Sangre-de-Cristo Range, not far from Sierra Blanca, and on this stupendous ascent the road doubles sharply on itself again and again, climbing at the rate of over 216 feet to the mile.

DENVER: DENVER CLUB.

DENVER: HIGH SCHOOL.

The Atchison, Topeka & Santa-Fé Railroad runs from Denver south to Pueblo, and thence east down the Arkansas Valley into Kansas. A southern extension branches off at La Junta, for Mexico and Southern California. The Colorado Midland runs from Colorado Springs over the Ute Pass into South Park, and crosses the Park Range, with superb views of the Saguache and Sangre-de-Cristo Ranges. It then ascends to Leadville, and arduously climbs the Saguache Range, running for a long distance among the barren rocks above the timber-line.

Chief Cities. — Denver was founded in 1858, on the South Platte River, 15 miles east of the mountains, and named for Gov. James W. Denver of Kansas. It slopes toward and views the Rocky Mountains, and is about a mile above the sea, with a rare, dry, clear and sunshiny air, and park-like shadowy streets, lined with fine public buildings. Denver is an important railway junction, and the commercial metropolis and trading centre for a vast area; and has many factories, the best of artesian well-water, and scientific sewerage. The view from its upper parts includes a superb crescent of purple and white mountains, more than 200 miles long, from Pike's Peak, in the south, to beyond Long's Peak, in the north.

BELOW FREMONT PASS.

Leadville, the foremost carbonate mining-camp in the world, stands on the Rocky Mountains, nearly two miles above the sea-level. From 1859 to 1864 it bore the name of California Gulch, and yielded $1,000,000 a year in gold dust. After this it was nearly abandoned, until 1876, when the great beds of silver carbonate were unearthed.

Pueblo is one of the chief cities of Colorado, surrounded by leagues of rich farms, with an admirable climate, and but 40 or 50 miles by a down grade from the mountains, which contain inexhaustible quantities of coal and minerals. It is "the Pittsburgh of the West," the key of southern Colorado, the meeting point of numerous railways, and humming with steel-works, foundries, lead-works, nail-works and rolling-mills. Glenwood Springs is the supply-point and railway-centre of the Grand River Valley, with iron and coal mines, water-works, electric lights, and two daily papers. It is 5,200 feet above the sea-level.

Among other Colorado towns are Fort Collins and Greeley, on the wheat-growing plains; Trinidad, in the south, with important iron manufactures; Golden and Boulder and Cañon City, with their mines, manufactures and schools; Central, the seat of gold-mines; and the active mining-camps of the Rocky Mountains, Gunnison, Ouray, Breckenridge, Salida, Silverton and others.

If the pioneer gold-hunters of a generation ago should revisit the plains of Denver, in their day so lonely and desolate, they would find matter for wonder and amazement in the splendid modern metropolis which has risen here, face to face with the Titantic wall of the Rocky Mountains. Nothing would cause them more surprise than the new Broadway Theatre, a great fire-proof building, admirable in its lines of view and acoustic properties, rich in scenery, and perfect in mechanical arrangements, with a stage of steel and terra cotta, the most comfortable and luxurious of furnishings, and an asbestos curtain.

The Hotel Metropole in Denver adjoins the Broadway Theatre and is part of the same great pile of buildings, beautiful in architecture and massive in construction. It is conducted on the European plan, and was opened in 1891, with 130 guest-rooms, and a series of public apartments that would do credit to London or Paris. The wigwams of the old frontier days have vanished forever, with the era of "revolvers and canned fruit"; and the traveler from the East, West, North and South may rest here at the new Metropole amid all the luxuries of the nineteenth century, and in a hostelry as uninflammable as Pike's Peak.

DENVER: BROADWAY THEATRE AND METROPOLE HOTEL.

Finance.— The first bank in Colorado was opened in 1862; and in 1865 the First National Bank of Denver came into existence. The Denver Clearing-House Association contains eleven banks, and its yearly clearings reach

DENVER: FIRST NATIONAL BANK.

$220,000,000. The First National Bank does the heaviest business of all, and has achieved a remarkable success in building up a general banking business. It is one of the United-States depositories; and has a combined capital and surplus of $1,000,000. The magnificent building of this institution stands in the heart of Denver, and is very thoroughly equipped and appointed, and richly decorated. The safe-deposit vaults underneath are invincible by fire or burglars, and contain great treasures. The First National Bank finds a valuable business in individual and firm accounts, collections, country-bank accounts, and the advancement of the interests of correspondents.

Smelting is the greatest mechanical industry of Colorado, whose precious yellow and white metals have passed into the bullion currency of the country to the extent of hundreds of millions of dollars. Denver is one of the foremost manufacturers of the precious metals in the world, and the rivers of gold and silver continuously flowing from her furnaces practically irrigate the commercial channels of the nation. The scientific processes of smelting have made great advances during the last quarter of a century, and their high success has stimulated mining industries in all parts of the country. Upwards of $10,000,000 are invested in the smelters of Denver.

The Omaha & Grant Smelting and Refining Company resulted from a combination of the Omaha Smelting Company, of Omaha and Denver, with the Grant Smelting Company originally founded at Leadville in 1878 by ex-Gov. James B. Grant. The works at Denver cover nearly fifty acres and employ 500 men, their 35 immense roasting, calcining and fusing furnaces consuming daily 400 tons of ores, from the Rocky-Mountain and Pacific States and Mexico. The yearly product of these works and of the larger and older furnaces belonging to the same company at Omaha, exceeds $15,000,000 in gold and silver, copper and lead. The capital of the Omaha & Grant is $2,500,000. It is the largest establishment of its kind in the world. Guy C. Barton is its president; James B. Grant, vice-president; and W. H. James, superintendent.

DENVER: OMAHA & GRANT SMELTING WORKS.

The Boston & Colorado Smelting Company has extensive works at Argo, near Denver, and is devoted to the smelting of gold, silver and copper ores in reverberatory furnaces, and the application of the Ziervogel process to silver "matte." The company was founded in 1867 by Nathaniel P. Hill, professor of chemistry at Brown University, who came to this region in 1864 to make a report on its mines, for certain eastern capitalists. The works were removed from Black Hawk to Denver in 1879. They have enjoyed a constantly increasing patronage, and their output of the precious metals already exceeds $65,000,000. Mr. Hill has represented Colorado in the U.-S. Senate, with great efficiency, especially in the debates on irrigation, the silver question, deep-water harbors in Texas, the removal of the Ute Indians, the wool tariff and the postal telegraph. His introduction of the first successful method of treating refractory ores has been worth scores of millions of dollars to Colorado, and has added greatly to the wealth of the United States.

DENVER (ARGO): BOST. & COLO. SMELTING WORKS.

DENVER, AND THE ROCKY MOUNTAINS.

The Colorado Coal & Iron Company, one of the foremost of the industries of the West, was the outgrowth of the researches of Gen. Wm. J. Palmer, who was one of the first (as well as one of the most careful and thorough) prospectors of Colorado. The company acquired extensive fields of the best coking, steam and domestic coal; the richest hematite, magnetic and Bessemer iron ores; valuable oil lands; and favorably located town-sites and agricultural lands. It also has operated its mines and erected furnaces, rolling-mills and steel-works. Its coke is conceded to be of superior quality. Its steel rails have been found the equal of any, after being very thoroughly tested by various roads; and its iron pipe, spikes and merchant iron find ready sale. The furnaces, and steel and other mills are located at Pueblo, the second city in Colorado, advantageously situated as a railroad centre, and surrounded by a large area of land admirably adapted to agriculture, and supplied with irrigation by the Bessemer Ditch, now opened, mainly through the efforts of the Colorado Coal & Iron Co. Pueblo, already a large manufacturing centre, is growing in a substantial manner. It has a population of about 35,000, with the usual evidences of modern progress, water-works, electric lights, and electric cars. Its new Opera House, erected from plans of Adler & Sullivan, the architects of the great Chicago Auditorium, is one of the finest structures of this character in the West. The new buildings that have been erected within the past few years give the city a vigorous and flourishing character. The Colorado Coal & Iron Company own large tracts about the city suitable for agricultural or manufacturing purposes, and have been instrumental in bringing many of the smelters and other business concerns here, by a liberal and wise course in that direction. During the year 1890 the company sold land to the value of over $1,000,000; it mined 800,000 tons of coal; and made 120,000 tons of coke, 42,000 tons of pig iron, and 25,000 tons of steel rails. Its gross earnings, exclusive of sales of real estate, were $2,840,000. Its capital is $10,000,000, and its bonded debt is $3,500,000; and its rapidly increasing sinking-fund already reaches $345,000. The mineral development of Colorado has been greatly advanced by this enterprising company.

The geological history of the West is concerned mainly with the gradual upheaval of the great continental mountain-range from beneath the sea. Beginning with the emergence of the Sierra Madre from the waste of waves, this uplifting of the land advanced northward; and the Sierra San Juan of Colorado is probably the most ancient section of firm ground on this side of the Republic. Later, the other ranges slowly appeared above the sea, the Sangre-de-Cristo and Sierra Mojada, and finally the Front Range. For ages

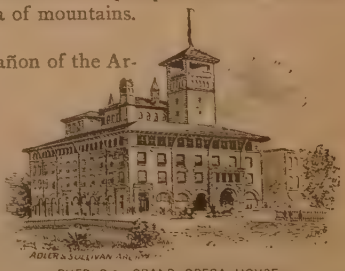
PUEBLO: COLORADO COAL & IRON CO.

PUEBLO: UNION RAILWAY DEPOT.

the ocean beat against the steep western declivities; and the more gradual eastern slopes were formed by the deposits washed down from the peaks into the shallow waters on that side. The mountain-walls encircled many lakes of salt water, which finally drained off through the cañons, leaving the broad basins of the parks, for the homes of the coming empire.

"Colorado is the flower of a peculiarly western civilization, in which is mingled the best blood of the North and the South, the virile sap of New England and the Carolinas — a truly American State."

The growth of Denver in population and in influence has been one of the most remarkable instances of the great Western development. Well-known public men have predicted that the fourth city of the New World will occupy this locality, inside of a century. The first governor of Colorado, William Gilpin, used to say that he came into these remote solitudes to "found an empire;" and claimed for the country the distinction of "straddling the axis of the temperate zone." The highlands near Denver, now being occupied by bright suburban villages and public institutions, command on the east a prospect over boundless expanses of prairie, and on the west a sublime panorama of mountains.



PUEBLO: GRAND OPERA HOUSE.

"A drive of twelve miles brings us to the Grand Cañon of the Arkansas. Disappointment is bitter, and feelings of resentment almost beyond control, as nowhere can the eye discover the cañon. In the immediate foreground the piñon growth is rank and dense; just beyond, great bleak ridges of bare, cold rock contrast strongly with the profusion of foliage hiding every thing beneath from sight, while away in the dim distance the snow-crowned peaks of the continental divide are outlined sharp and clear against the solid blue of the morning sky. Though grand beyond anything we have seen, in amazing extent of vision, the mind is so wrapped up in the anticipation of full realization of the gloom, and vastness, and solemn grandeur of the Grand Cañon, as to resent almost angrily their apparent absence. A half dozen steps from the clump of piñon trees, where the horses have been fastened, and all thoughts of resentment, of disappointment and chagrin vanish, and a cry of absolute terror escapes us. At our very feet is the cañon — another step would hurl us into eternity. Shuddering, we peer down the awful slopes; fascinated, we steal a little nearer to circumvent a mountain that has rolled into the chasm, and at last the eye reaches down the sharp incline 3,000 feet to the bed of the river, the impetuous Arkansas, 40 to 60 feet in width, yet to us a mere ribbon of molten silver. Though surging madly against its rocky sides, leaping wildly over gigantic masses of rock and hoarsely murmuring against its imprisonment within these lofty walls, it finds no avenue of escape. Every portion of these marble bastions is as smooth as if polished, and as stationary as the mighty walls that look down upon them from such fearful height." Turning from this awful gorge to the equally astonishing chasms beyond the Continental Divide, the antiquary finds there the silent and unrevealing vestiges of a lost people. Over three centuries ago the Spaniards found these same ruins, just as now, the houses hewn from the solid rock of the mesas and cliffs, and the other architectural constructions concerning whose builders and occupants even tradition is silent.

CANON ON THE SAGUACHE.

HISTORY.

The little Commonwealth of Connecticut, nestling between New York, Massachusetts and Rhode Island, with Long-Island Sound and a glimpse of the open sea on the south, holds a proud place among the American States, by reason of the general high cultivation of her people, and the wonderful ingenuity of her inventors and mechanics. This rich and happy Christian community has risen in a land once drenched with savage blood, and its peaceful industrial villages have replaced the wigwams of warring red men. The Indians of pre-historic Connecticut numbered fewer than 20,000. All the Connecticut tribes were tributaries of the warlike Mohawks, of New York, whose envoys made yearly tours through their domains, collecting tribute and promulgating the edicts of the Five Nations. About the year 1600 a clan of the New-York Mohicans cut their way through these vassal villages, and settled near the Mystic River, whence they waged almost perpetual warfare upon the Narragansetts, and ground down the local tribes. This was the celebrated Pequot tribe, numbering 700 brave warriors, under the lead of the Sachem Sassacus. The Dutch purchased the land from the lawful Pequot authorities, and the Massachusetts colonists also secured from Sassacus permission to trade and settle here. Sir Harry Vane sent Endicott to fight the Pequots, with little result; and in 1637 Connecticut despatched Capt. John Mason against them, with ninety Englishmen, aided by Uncas and 70 Indians. In a long battle near Groton, the tribal power was broken, and 500 of the savages lost their lives. A remnant of the Mohegan tribe still holds a reservation on Massapeag Mountain (or Mohegan Hill), below Norwich, overlooking the Thames, where every September they have a festival, in a wigwam of forest-boughs, set off with succotash, yokeag, baked quahaugs and other Indian delicacies. The first European explorer hereabouts was

STATISTICS.

Settled at	Windsor.
Settled in	1633
Founded by Massachusetts men.	
One of the original 13 States.	
Population, in 1860,	460,147
In 1870,	537,454
In 1880,	622,700
White,	610,769
Colored,	11,931
American-born,	492,708
Foreign-born,	129,992
Males,	305,782
Females,	316,900
In 1890 (census),	746,258
Population to the square mile,	128.5
Voting Population (1880),	177,291
Vote for Harrison (1888),	74,584
Vote for Cleveland (1888),	74,920
Net State Debt (1890),	$1,239,752
Real Property,	$244,000,000
Personal Property,	$105,000,000
Banks,	93
Savings Banks,	86
Deposits,	$112,000,000
Area (square miles),	4,990
U. S. Representatives (1893),	4
Militia (Disciplined),	2,857
Counties,	8
Cities,	12
Towns,	160
Post-offices,	499
Railroads (miles),	1,007
Capital,	$65,000,000
Gross Yearly Earnings,	$20,000,000
Manufactures (yearly),	$186,000,000
Operatives,	116,000
Farm Land (in acres),	2,400,000
Farm Population,	44,000
Farm Values,	$135,000,000
Farm Products (yearly),	$18,000,000
Colleges,	3
Public Schools,	1,650
School Children,	135,000
Newspapers,	182
Temperature,	−14° to 100°
Mean Temperature (New Haven),	49°

TEN CHIEF CITIES AND THEIR POPULATIONS. (Census of 1890.)

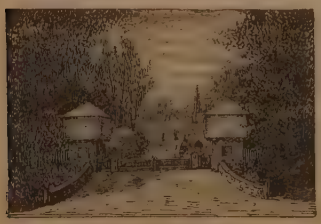
New Haven,	81,298
Hartford,	53,230
Bridgeport,	48,866
Waterbury,	28,646
Meriden,	21,682
New Britain,	19,007
Norwalk,	17,747
Danbury,	10,552
Norwich,	16,156
Stamford,	15,700

HARTFORD: THE CHARTER OAK.

Adriaen Blok, a gallant Hollander, who in 1614 sailed along the coast in the *Onrust* (*Restless*), and ascended the Connecticut River above the site of Hartford. The Dutch skippers named the Connecticut the Varsche (or Fresh) River. They took possession of the country, by right of discovery; and in 1623 erected a trading-post, called the House of Hope, at Hartford. The pioneer English settlers were men of the Plymouth colony, who, in 1633, sailed up the Connecticut and established and garrisoned a trading-post at Windsor. Soon afterwards, sundry disaffected pastors and people of the Massachusetts towns of Dorchester, Cambridge and Watertown marched overland to Connecticut. Watertown occupied the site of Wethersfield, early in 1635; Dorchester settled near the Plymouth fort, at Windsor; and Cambridge colonized Hartford. Meantime, the Earl of Warwick had granted this domain to Viscount Say and Sele, and others; and John Winthrop, Jr., erected a fort at the mouth of the Connecticut, where he beat off a Dutch naval expedition. Another colony, composed largely of Yorkshire Puritans, and led by the Rev. John Davenport and Theophilus Eaton, both of London, reached Boston in 1637. Finding Massachusetts unpromising as a place for settlement, in the following year they founded New Haven. Soon afterwards, a Kentish colony settled at Menunkatuck (Guilford); and men of Hertfordshire occupied Wapoweage (Milford). These, with Stamford, Branford, and Southold (Long Island), made up the Commonwealth of New Haven. The new colony represented extreme ecclesiastical forms and influences; but after a long fight for existence, it united with the Connecticut (or Hartford) colony in 1662. Stonington, Enfield, Suffield and Woodstock were for many years Massachusetts towns. The boundary agreed upon in 1664 ran north-northwest from Mamaroneck, and crossed the Hudson at West Point, leaving Newburgh, Poughkeepsie and Kingston in Connecticut. The greater part of Long Island, the natural sea-wall of Connecticut, was ceded to the English by Captain-General Peter Stuyvesant, in 1650. In 1674 the King of England annexed it to the Province of New York, then pertaining to the Duke of York, to whom he gave also all of Connecticut as far as the river. The latter assignment was successfully resisted by the Connecticut government; but Long Island passed away forever from its rightful owners.

NEW HAVEN: JUDGES' CAVE.

The Connecticut charter, adopted in 1639, was the earliest complete code of civil order written in America, and embodied for the first time the free representative plan which is still paramount in the States and the Republic. By its provisions, the people stood independent, and the supreme power was the Commonwealth. The colony received from King Charles II., in 1662, a liberal charter, giving it practical self-government. James II. labored strenuously to vacate all the New-England charters; and in 1687 Sir Edmund Andros came to Hartford, with sixty soldiers, the Assembly being in session, and demanded the charter of Connecticut. The precious document was laid on the table, in the presence of the Assembly and Andros, when suddenly the lights were extinguished, and Capt. Wadsworth, seizing the charter, cautiously withdrew and secreted it in a hollow tree, so that the King and his men never got hold of this palladium of liberty. The tree was thereafter known and honored as the Charter Oak, and remained standing until 1856, when it was blown down.

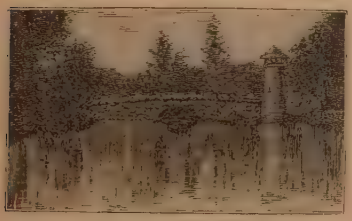

REDDING: PUTNAM PARK.

WEST HARTFORD: NOAH WEBSTER'S BIRTHPLACE.

A marble tablet commemorates its site. After the dethronement of James II., the colonial government continued in its quasi-independent way; and the charter given by Charles II. remained unaltered until 1818. This generous document confirmed to Connecticut "the soil from Narragansett Bay on the east to the South Sea on the west," being a belt seventy miles wide across the continent, including parts of New York, Pennsylvania, Ohio, Indiana, Illinois, Michigan, Iowa, Nebraska, Wyoming, Colorado, Utah, Nevada, and California. Most of this domain was given up, as interfering with other colonial grants; and the proceeds of the remainder formed the basis of the present school-fund of the State. The venerable charter of Charles II. is sacredly preserved in the Capitol, in a frame made from the wood of the Charter Oak.

The so-called Blue Laws were a libellous production by a hostile writer (the Rev. Samuel Peters), and had no adequate foundation in fact. The early jurisprudence of the colony, though touched by the spirit of the time, was to the full as lenient and humane as that of any other New-England commonwealth, and much kindlier than that of England.

The delegates of Connecticut stood among the first to propose in Congress a declaration of independence from England. When the Revolution broke out, Jonathan Trumbull, a warm patriot and level-headed man, held the governorship; and his advice was so valued by General Washington, who often suggested consultation with "Brother Jonathan," that this familiar nickname came to be representative of American manhood, and ultimately of the Nation itself. Connecticut troops joined in the capture of Fort Ticonderoga, and fired deadly volleys from the rail-fence on Bunker Hill; and 4,000 marched to the relief of Boston, in April, 1775. Of Washington's army of 17,000 men around New York, 9,000 were from Connecticut. In 1777 Gov. Tryon and 2,000 British infantry captured Danbury, but suffered severely in the retreat. Two years later, Tryon and 3,000 British soldiers plundered New Haven, and destroyed Fairfield and Norwalk, losing 300 men. In 1781 Benedict Arnold, the traitor, stormed Fort Griswold, and burned New London. Connecticut sent 31,939 soldiers into the Continental army. Washington, in general orders, praised "the soldier-like and veteran appearance, cleanliness and steadiness of the Connecticut troops."



MILFORD: STONE BRIDGE.

After Connecticut had become fairly peopled, largely by migration east and west from the valley, new swarms went out from the colony, and settled the Hadley and Amherst region in Massachusetts, and great areas of New York and Vermont. The Genesee country of New York, and the Western Reserve of Ohio (anciently called *New Connecticut*), were largely peopled from this State.

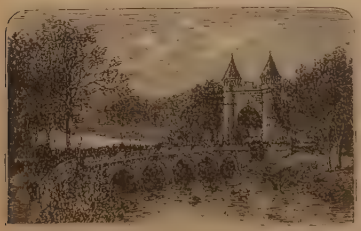
At the outbreak of the late civil war the militia system of Connecticut was not efficient. But during the conflict the State sent into the army 55,864 volunteers, out of 80,000 voters, organized into twenty-eight regiments of infantry, two regiments and three batteries of artillery, and one regiment and one squadron of cavalry. Of these, 1,902 men were killed in battle, and 4,719 men died of disease, or were missing.

SHARON: SOLDIERS' MONUMENT.

Among the interesting memorials of ancient days, besides the churches and mansions in the gray old towns along the Sound and the Connecticut Valley, are several notable public monuments. Nathan Hale, the patriot spy of the Revolution, is honored by a

lofty granite pyramid in South Coventry, bearing his dying words: "I only regret that I have but one life to lose for my country." There is also a statue of Hale in the State-House. A granite obelisk on the heights of Groton commemorates the brave garrison of Fort Griswold, massacred by British troops, after a hard battle, in 1781. In Redding, near the ruined barracks of Putnam's division of the Continental Army, in 1778–79, the State has erected a lofty obelisk, and has reserved the camp-ground as a State park. This is the only remaining cantonment of the armies of the Revolution, and near it stands the venerable Christ Church. The remains of the brave Gen. Israel Putnam lie at Brooklyn, Connecticut, under a monument erected in 1888 by the State, and crowned by an equestrian statue of the hero. A bronze statue of Capt. John Mason was erected in 1889 on Pequot Hill, near Mystic, where that brave officer broke the power of the Pequot tribe. From this point the view reaches three States, 15 towns, 20 islands, and seven lighthouses. In 1889 Milford erected a memorial stone bridge over her river, guarded at one end by a round tower roofed with Spanish tiles, and bearing below its parapets the names of the founders of the town. There are scores of monuments in commemoration of the soldiers of the late civil war, from the magnificent Arch at Hartford and the lofty shaft on East Rock, New Haven, crowned with a colossal Angel of Peace, and surrounded by bronze statues and reliefs, to the simpler monuments on many a quiet village-green. The Soldiers' Memorial Arch, at Hartford, was designed by George Keller, and erected in 1886, at a cost of $60,000. It stands on the bridge in Bushnell Park, and is flanked by massive round towers more than 100 feet high, with conical roofs. Above the archway a sculptured frieze of terra-cotta statuary, seven feet high, runs around the entire monument, representing "The Story of the War," and "The Return of the Army." The soldiers' monument at Winchester is a tall square tower, crowned by a bronze statue of Victory; and Winsted commemorates its heroes by a feudal watch-tower, of granite, 63 feet high, with a colossal bronze soldier on the top, holding a flag, as commemorative of the patriotic heroism of the volunteers.

BROOKLYN: PUTNAM STATUE.



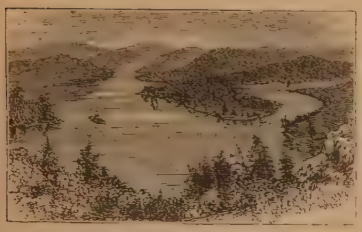
HARTFORD: BRIDGE AND MEMORIAL ARCH IN PARK.

The Name of the State is an Algonquin compound word, *Quinnehtukqut*, meaning "The Land on a Long Tidal River." THE LAND OF STEADY HABITS is a pet name given to Connecticut, by reason, perhaps, of the settled customs and sobriety of its people. It is also called *The Freestone State*, in allusion to a leading product; and *The Nutmeg State*, because of the old fable that its travelling traders used to sell nutmegs made of wood to their patrons of the Middle States.

The State Seal was given by George Fenwick, Governor of Saybrook, about the year 1644. It bears three vines (Hartford, Windsor and Wethersfield), on a white field, symbolizing the colonies brought over and planted in the wilderness; and the motto, *Qui transtulit sustinet*, expresses faith that He who brought over the vines continues to take care of them.

The State Governors were: Jonathan Trumbull, 1769–84; Matthew Griswold, 1784–6; Samuel Huntington, 1786–96; Oliver Wolcott, 1796–7; Jonathan Trumbull, 1797–1809; John Treadwell, 1809–11; Roger Griswold, 1811–12; John Cotton

NEW HAVEN: SOLDIERS' AND SAILORS' MONUMENT, ON EAST ROCK.



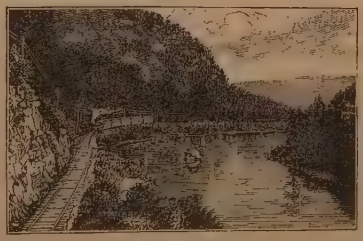
CONNECTICUT RIVER, NEAR HADDAM.

Smith, 1812–17; Oliver Wolcott, 1817–27; Gideon Tomlinson, 1827–31; John S. Peters, 1831–3; Henry Waggaman Edwards, 1833–4, 1835–8; Samuel Augustus Foot, 1834–5; William Walcott Ellsworth, 1838–42; Chauncey F. Cleveland, 1842–4; Roger Sherman Baldwin, 1844–6; Isaac Toucey, 1846–7; Clark Bissell, 1847–9; Joseph Trumbull, 1849–50; Thomas Hart Seymour, 1850–3; C. H. Pond (acting), 1853–4; Henry Dutton, 1854–5; William Thomas Minor, 1855–7; Alex. H. Holley, 1857–8; William Alfred Buckingham, 1858–66; Joseph Roswell Hawley, 1866–7; James E. English, 1867–9, and 1870–1; Marshall Jewell, 1869–70, and 1871–3; Charles R. Ingersoll, 1873–7; Richard D. Hubbard, 1877–9; Charles B. Andrews, 1879 81; Hobart B. Bigelow, 1881 3; Thomas M. Waller, 1883–5; Henry B. Harrison, 1885–7; Phineas C. Lounsbury, 1887–9; and Morgan G. Bulkeley, 1889–93.

The Topography of the State deals mainly with the valleys of streams emptying into Long-Island Sound. The northern border is 88 miles long; the southern border, 100 miles; the eastern boundary, 45 miles; and the western, 72 miles. The beautiful Connecticut River divides it into two nearly equal parts, the old Pequot country, on the east, with its low hills and broken vales, and thin population; and the western counties, including three fourths of the inhabitants, and with many prosperous manufacturing places. The chief valley of the east is that of the Thames, a navigable estuary fifteen miles long, entering the Sound at New London. The Connecticut is the largest river of New England, being over 400 miles long. Vessels drawing ten feet reach Middletown, and those drawing eight feet go up as far as Hartford. The chief river of the west is the Housatonic, 150 miles long, rising in the Berkshire Hills, and flowing through a picturesque highland region. The Farmington River enters the Connecticut above Hartford, traversing a rich and lovely valley, in a course of singular sinuosity.

There is a fine line of hills following the Housatonic River, reaching its chief altitude at Bear Mountain, in Salisbury, 2,354 feet high, and the loftiest peak in Connecticut. Other summits in this beautiful region are Bald Peak (1,966 feet), Mt. Bradford (1,960 feet), Mohawk Mountain (1,680), and Ivy Mountain (1,642). Farther east is a continuation of the Green Mountains of Vermont, ending with East Rock and West Rock, abrupt and picturesque eminences about 400 feet high, near New Haven, the one crowned by a lofty soldiers' monument, and the other made sacred by the Judges' Cave, where two of the Regicides found shelter in early colonial days. The Mount-Tom range, of Massachusetts, sinks away in the Blue Hills of Southington. The chief range east of the Connecticut River runs from Lyme northward to Bald Mountain, in Stafford, and thence into Massachusetts, a line of granitic summits, marking the water-shed between the Connecticut and Thames Valleys. Beautiful views may be obtained from Bartlett's Tower, on the lofty hills northwest of Hartford; and others of more reach from the mountains of Norfolk and Salisbury.

The Geology of Connecticut is chiefly concerned with the ancient Eozoic period, varied by the Post Tertiary terraces of the great valley, and the Triassic sandstone of the New-Haven region. Through the red sandstones of the central counties columnar ridges of trap-rock have broken their way, and show sharp westward sides and gentle slopes to the east. The hematite iron of Kent, Cornwall and Salisbury is of high grade, and many of the weapons used in the Revolution were made therefrom. The copper-mines at East



NAUGATUCK RIVER.

WINSTED : LONG POND.

Granby shut down in 1760, when two cargoes of ore were lost; one having been wrecked in the Channel and the other captured by the French. From 1775 to 1827 the subterranean shafts of this mine served as the State Prison. The Granby coppers minted in 1737, and the first United-States cents, were coined from metal found here. The red sandstone of Portland, on the Connecticut River, has been used in immense quantities for building. The quarries employ 800 men. At Canaan and Milford, Roxbury and Washington, marble and limestone are quarried. Bolton and Haddam are famous for mica-slate flagging, used for 80 years for paving, largely in New York and Washington. Elsewhere there are quarries of granite roofing slate, hydraulic lime and porcelain clay.

The Climate is severe, but healthful, the mean temperature being 48° Fahrenheit. There are practically two seasons, a pleasant summer, lasting from April to November, and a bright, clear and cold winter, with dry and keen northwest winds, keeping the sky serene. The death-rate is between 17 and 18 in a thousand, being lower than that of Europe or Massachusetts.

Agriculture was the leading business up to 1810, when the mechanical development began. There are 30,000 farms, with an average size of 106 acres in 1850; 99 in 1860; 93 in 1870, and 80 in 1880. Tobacco has been one of the favorite crops ever since the days of the aborigines, who cultivated large tracts of it. The old-time "shoe-string" tobacco, with its long and narrow leaves, has been superseded by a broader leaf, raised from imported seed. It is very mild, and finds its chief use as wrappers and binders for cigars made from the strong-flavored Havana tobacco. The product rose from 472,000 pounds in 1840 to 14,000,000 pounds in 1880, with a value of $2,000,000.

The culture of tobacco is mostly confined to the valleys of the Connecticut and Housatonic Rivers. The dairy is the leading branch of agriculture elsewhere. Mixed husbandry everywhere prevails, as the soil and climate are well adapted to a great variety of fruits and vegetables, which find a ready home market.

Connecticut abounds in attractive scenery, and holds within its borders many well-known summer-resorts. Among these favorite scenes are the vales of ancient Litchfield; the landscape charms of Winsted and its Mad River; the western ridges of Newtown and New Milford; Killingly's lovely valley, between the heights of Mashentuck and Breakneck; the rich Piedmontese scenery of the Salisbury region, abounding in lakes and mountains; the fertile and enriching intervales of the Connecticut River, overarched by majestic trees; the fair rural scenes about Woodstock and Pomfret; and the picturesque wooing of land and water along Long-Island Sound. The southern shore is rich in beauty of scenery, and contains scores of summer-resorts, from Indian Harbor and Greenwich, on the west, by Fairfield and Savin Rock, the Thimble Islands and Saybrook, to New London and Stonington. There are many harbors along this embayed coast, more than enough for the scanty maritime commerce. Among these are Fairfield, Bridgeport, New Haven, Saybrook, Stonington and New London. The last-named is one of the best harbors on the Atlantic coast, deep and capacious, and free from ice.

NEW LONDON : THAMES BRIDGE.

The Government officers of the State are elected for two years. They include the governor, lieutenant-governor, secretary of the State, treasurer and comptroller. The Senate has 24 members, and the House of Representatives

has about 250 members. The United-States Circuit Court holds yearly terms at New Haven and Hartford; and the United-States District Courts hold two sessions in each of those cities yearly. The State tribunals include the Supreme Court of Errors, with a chief justice and four associates; the Superior Court, six judges and the five mentioned above; five courts of common pleas, and numerous inferior courts and probate courts. The general statutes were revised in 1888, and form an admirable code of laws for the public welfare.

HARTFORD: N.-Y. & N.-E. RAILROAD BRIDGE.

The State Capitol, at Hartford, built of East-Canaan white marble, at a cost of $2,500,000, crowns a beautiful hill in Bushnell Park, bought by the city from Trinity College, and given to the State. It is in secular Gothic architecture, designed by Upjohn, and has a length of 300 feet, broken by columns, arches, galleries, arcades, and commemorative sculptures and statuary. The noble twelve-sided dome rises to a height of 275 feet, and is crowned by a bronze statue of "The Genius of Connecticut." The Capital is fire-proof. It contains the senate chamber, representatives' hall, Supreme-Court room, and State Library, and the great battle-flag corridor. In Bushnell Park are statues of Gen. Israel Putnam (by J. Q. A. Ward), Ex-Gov. R. D. Hubbard, and Dr. Horace Wells, a discoverer of anæsthesia. Here also stands the Memorial Arch. Within the Capitol are statues of Nathan Hale and William A. Buckingham, the War-Governor of Connecticut.

The Militia is under the governor, as commander-in-chief, with seven general staff-officers and aides-de-camp. The State troops, officially entitled the Connecticut National Guard, form a brigade of four regiments of infantry (34 companies), a battery of light artillery, a battalion of colored infantry (three companies), and a small signal corps. The Governor's Guards include the first (Hartford, chartered in 1771) and second (New Haven, 1775) companies of Fort Guards, and the first (Hartford, 1788) and second (New Haven, 1808) companies of Horse Guards. The State Arsenal, at Hartford, was built in 1812, and contains many military relics and curiosities. There is a State armory at New London. The militia goes into camp every year, at Niantic, near Long-Island Sound. Fitch's Soldiers' Home, at Noroton Heights, near the Sound, contains 200 disabled Connecticut veterans of the Secession War. It belongs to the State.

Charities and Corrections.—The American Asylum for the Education and Instruction of the Deaf and Dumb was incorporated in 1816, largely through the efforts of Dr. Thomas H. Gallaudet, and opened in 1817, at Hartford. It received 23,000 acres of land from Congress, besides large State aid, and now owns property valued at $400,000. Here 2,500 children have been instructed, 90 per cent. of them being New-Englanders. Prof. Alexander Graham Bell's system of visible speech is taught; and industrial training is an essential feature. Most of the flourishing schools for deaf-mutes throughout America have been assisted and officered thence. The State General Hospital for the Insane occupies imposing stone buildings on a hill near Middletown, overlooking the Connecticut. It accommodates 1,400 patients. The Retreat for the Insane was founded, at Hartford, in 1824, and has above 150 inmates, mainly those who can afford good accommodations. The State Prison, at Wethersfield, near Hartford, dates from 1827, and holds 250 convicts. The buildings are of red sandstone. The Storrs Agricultural School is a State institution (established

HARTFORD: DEAF AND DUMB ASYLUM.

MIDDLETOWN: INDUSTRIAL SCHOOL FOR GIRLS.

upon a farm given by the Storrs family), in the town of Mansfield. The Industrial School for Girls, founded in 1870 by private charity, is mainly supported by the State, and has a group of handsome and commodious buildings, at Middletown. Fifty or more vagrant girls, of from eight to 16 years, are here taught housekeeping and sewing, and farm and garden work. The State Reform School, founded at Meriden, in 1854, has a domain of 195 acres, where bad boys of from ten to 16 years are sent by the courts, and required to work for six and a half hours, and to study for four and a half hours each day; 400 boys are kept here. The divine cause of charity is well represented in the orphan asylums at Hartford and New Haven; the hospitals at Hartford, New Haven, Waterbury, Danbury and Bridgeport; and the State School for Imbeciles, at Lakeville.

The National Works in Connecticut include the massive granite fortress of Fort Trumbull, near New London, and the dismantled Forts Hale and Wooster, below New Haven. There are more than a score of lighthouses along the Sound, and several lights on the river. In 1867 the Government secured land for a navy-yard on the Thames, where there is a deep and capacious harbor. This station would command the eastern entrance of Long-Island Sound, "the Mediterranean of the Western Hemisphere." In the long years of peace, since the site was set apart for naval uses, but little has been done for its equipment, which awaits the coming of the day of need.

Education is supervised by a State Board. The schools have been maintained, partly by taxes; partly by rate-bills, discontinued in 1868; and partly by the income of funds. Local school-funds were raised a century and a half ago by the land sales and excise on tea, liquors and other luxuries. The State school-fund came from the sale of Western lands, belonging to Connecticut by her Stuart charter, and disposed of for $1,200,000, which has since grown to above $2,000,000, invested in seven-per-cent. land-mortgages. There are 1,400 school-districts, and 400 male and 2,700 female teachers. The yearly expenditure for the public-schools is $1,800,000. The Connecticut Normal Training School, founded at New Britain, in 1850, has 330 students, and about 60 graduates yearly. Many of the local schools have fine buildings, like that of the Hartford Public High School, a fire-proof structure 236 feet long, with handsome Gothic towers, one of which contains a powerful telescope, equipped by Warner & Swasey. Connecticut furnishes more college students, in proportion to her population, than any other State.

HARTFORD: THE WADSWORTH ATHENÆUM.

Yale University was founded in 1701, by the ten chief Congregational ministers, as the Collegiate School of Connecticut; and remained at Killingworth and Saybrook until 1716, when it was moved to New Haven. In 1718 it received the name of its benefactor, Elihu Yale, who was at one time Governor of the East-India Company's settlement at Madras. In 1887, the name of Yale University was authorized by law. There are four departments: Philosophy and the Arts (including the Academic Department, the School of Fine Arts, and the Sheffield Scientific School), Theology, Medicine (1813), and Law. The University Library contains 150,000 volumes and a vast number of pamphlets; and there are over 50,000 volumes in the professional and Linonian libraries. The Peabody Museum of Natural History, endowed by George

MERIDEN; THE STATE REFORM SCHOOL.

NEW HAVEN: YALE UNIVERSITY.

Peabody, in 1866, with $150,000, contains rich and extensive collections, in various interesting lines of research. There are 80 graduate students, 830 in the academic department, 380 in the scientific school, 50 students in art, 140 in theology, 50 in medicine, and 110 in law; 1,500 in all, with 63 professors and 70 other instructors. The Chittenden Memorial Library, erected in 1888–89, is an imposing Romanesque building of Longmeadow sandstone. Osborn Hall, a recitation-room building, also of 1888–89, is a Byzantine-Romanesque structure of Stony-Creek granite, and is a most noticeable structure. This richly decorated building contrasts strangely with the Puritan simplicity of the contiguous older halls. The Art School owns 122 ancient Italian paintings (the Jarves Collection), 54 pictures of the Trumbull Gallery, 100 modern paintings, and 150 casts and marble sculptures. The University grounds are adorned by statues of Abraham Pierson, the first Rector, or President (1701–7), and Prof. Benjamin Silliman, the eminent physicist. Yale has exhibited a notable growth for many years, and is one of the four great

NEW HAVEN: CHITTENDEN MEMORIAL LIBRARY.

NEW LONDON:
WILLIAMS MEMORIAL INSTITUTE.

universities of America. She has given to politics Calhoun and Evarts, Tilden and Mason; to literature, Stedman and Willis, Percival and Pierpont, Fenimore Cooper, Donald G. Mitchell and Theodore Winthrop; to theology, Woolsey and Bushnell, Dwight and Hopkins, and Jonathan Edwards; to science, Morse and Whitney, Dana and Silliman; and to lexicography, Webster and Worcester.

Trinity College was founded largely by Episcopalians, and incorporated in 1823 as Washington College. Bishop T. C. Brownell became the first president; and in 1825 two brownstone buildings were erected. In 1845 the name was changed to Trinity. After a half-century, the campus became the site of the new State Capitol; and the present beautiful buildings, a part of an elaborate plan, in early French secular Gothic architecture, arose on a far-viewing hill in the southwestern part of Hartford, on the edge of a campus of 80 acres. To these have been lately added an Alumni hall and gymnasium, and a science hall, for laboratories. There are ten professors and ten lecturers, and 140 students. They represent 18 States. A noble statue of Bishop Brownell adorns the college lawn. The library contains 32,000 volumes; and there is a valuable museum.

Wesleyan University, founded in 1831, is under the control of the Methodist Church. Among its presidents were Wilbur Fisk (1830–39); Stephen Olin (1842–51); Nathan Bangs, and A. W. Smith. It is in Middletown, upon the avenue which Charles Dickens declared to be the finest rural street that he had ever seen. There are several good buildings and chapter-houses. Since 1872, women have been admitted. The University has 20 professors and instructors, and 230 students. The value of the plant and endowments of Wesleyan is about $1,600,000. The library contains 40,000 volumes.

MIDDLETOWN: WESLEYAN UNIVERSITY.

The Hartford Theological Seminary was founded in 1833 by the Pastoral Union, as a protest against what was conceived to be the objectionable philosophical tendency of the Yale Divinity School. In 1834 buildings were erected at East Windsor; and in 1865 the institution moved to Hartford, where it occupied the noble Hosmer Hall in 1879. There are 12 instructors and 66 students. The library contains 46,000 volumes. A marked extension of the scope and methods of the institution has lately been going forward. The Berkeley Divinity School (Episcopal), at Middletown, was founded in 1850. It has more than 300 graduates. There are six instructors and 30 students.

The Williams Memorial Institute is a handsome Romanesque building of pink granite, erected in 1889 on a hill over New London, for the free education of girls. The richly-endowed Norwich Free Academy has 250 students, in efficient classical and general courses, with a normal training-school for girls. The Slater Memorial Building belongs to the Free Academy, and is a handsome structure of brick and brownstone, with effective towers and porticos. The interior is faced with pressed brick and terra cotta, and wainscoted with polished gray marble, and includes a hall seating 1,100 persons, and the Peck Library. The great upper hall contains a museum of 227 casts from the most famous sculptures; an original Rembrandt; many valuable modern French paintings, by Corot, Millet and

HARTFORD: TRINITY COLLEGE.

NEW LONDON : THE PUBLIC LIBRARY.

others; a great number of electrotypes of rare Greek coins; and many hundreds of Braun and Brogi photographs. This admirable teaching collection is free to the people, thousands of whom visit it every month. The building was erected and equipped by William A. Slater, as a memorial of his father, John F. Slater, the noble philanthropist who gave $1,000,000 for the education of Southern negroes. This great fund is administered by trustees, and its income reaches and strengthens nearly 50 collegiate and professional schools in the States of the South.

There are many good private schools, like Bacon Academy, at Colchester, founded in 1780; the Connecticut Literary Institution, in the lovely old rural hamlet of Suffield; the Episcopal Academy of Connecticut, in the valley town of Cheshire; the famous old Gunnery, at Washington; the McLean Seminary, at Simsbury; and the first-class academies at Hartford, New Haven, Bridgeport, Stamford, and other places.

The chief public libraries are those of Bridgeport, 17,000 volumes; Norwich, 16,000; Waterbury, 38,000; and the great college and reference libraries at New Haven, Hartford and Middletown. The Wadsworth Athenæum, at Hartford, is a castellated building of Glastenbury gneiss, containing rich collections of statuary and paintings; the interesting museum and library of 22,000 volumes, belonging to the Connecticut Historical Society; the Hartford Library, of 35,000 volumes; and the richly endowed Watkinson Library of Reference of 44,000 standard books. A fund of $400,000 has just been subscribed, to create out of the different institutions in the Athenæum Building, a great free public library, art-school, art-gallery, and school of history. The late J. S. Morgan of London, long time a resident of Hartford, gave $100,000 towards this object. The State Library contains 12,000 volumes. The Public Library of New London, built in 1889, is a handsome Romanesque edifice of pink granite, with a red tile roof, and arcades covered by groined arches of stone.

NORWICH FREE ACADEMY : THE SLATER MEMORIAL BUILDING.

Books have for many years been an important product. The first press in the colony began its work at New London, in 1709, and another was set up by Thomas Green, at Hartford, in 1764. The first locally printed book was *The Saybrook Platform.* The subscription-book business, the great feature of Connecticut publishing, was founded by Silas Andrus, at Hartford, more than 60 years ago. Peter Parley's works, Mrs. Stowe's first book, the Cottage Bible, Olney's school-books, Mark Twain's earlier works, Headley's *Great Rebellion*, and Richardson's *Beyond the Mississippi*, were published in Connecticut.

The most widely-known journal in Connecticut is the *Hartford Courant*, the oldest newspaper in America, having been founded in 1764. Its early files contain discussions of the Stamp Act, the siege of Boston, the hunting of Burgoyne, the administration of Washington, and similar matters. It is a Republican paper, its present managers having been among the organizers of that party in the State. Its editorial and literary departments are of recognized ability, and it has many special features of interest, including the best correspondence from New York, Boston, and foreign capitals; and its news departments are maintained with a high degree of efficiency. The owners of the *Courant* are Senator and

HARTFORD : THE HIGH SCHOOL.

General Joseph R. Hawley, Charles Dudley Warner, William H. Goodrich and Charles H. Clark. It has a national reputation, and a wide circulation among intelligent readers. In many old Connecticut families, including those that have moved to other States, it has been taken continuously for the century and a quarter which it has been published; and during its long career it has absorbed more than 100 other journals. The *Courant* has a handsome six-story building, facing the post-office, on the historic "square." George D. Prentice, afterward of the *Louisville Courier-Journal*, was at one time engaged in journalism in Hartford as editor of the *Review;* and he "discovered" John G. Whittier, and there introduced him to the public. Mr. Whittier was Prentice's successor, and lived in Hartford several years. Two of the leading religious papers in America (now published elsewhere) were founded in Hartford—*The Congregationalist* (in 1839) and *The Churchman* (in 1865). Connecticut has 34 daily newspapers, 113 weeklies, 21 monthlies, and four quarterlies. Five are in German, and one in Swedish; six are devoted to religion, one to farming, and three to labor. Science, socialism, prohibition, art and music have their special organs.

HARTFORD: HARTFORD COURANT.

Maritime Commerce is of but little consequence here, most of it passing to New York. Two hundred and fifty vessels enter and clear yearly in foreign trade, and 4,000 in the coastwise trade and fisheries. The fishing fleet numbers nearly 300 vessels, with 1,200 sailors, and an annual product of $800,000. It sails from New London and Stonington; and more than a quarter of the tonnage is in the whaling business. The imports and exports of New Haven are tenfold greater than all the others combined, passing $4,000,000 a year. A profitable Connecticut industry is the propagation of oysters, in artificial beds along the Sound, east and west of New Haven.

The Railroads of Connecticut are 22 in number, with $67,000,000 of stock (of which $19,000,000 is held by 5,500 stockholders in this State); debts amounting to $41,000,000, and permanent investments of $112,000,000. Their net income is $3,000,000 a year. Nearly 700 miles are included in the Consolidated, or New-York, New-Haven & Hartford system. The railways from New York to Boston and the east cross Connecticut and carry a prodigious travel, which is protected by careful State inspection. The railway stations at Hartford, New Haven, New London, and other cities, are costly and attractive modern structures. The entire coast of Long-Island Sound is followed by a line of railway, passing through Stonington and New London, New Haven and Bridgeport. The Shore-Line trains, from Boston and Providence to New York, traverse this route. A line of magnificent and luxurious steamboats connects Stonington and New York daily, traversing Long-Island Sound, and connecting directly with the railway-trains to and from Boston. The New-York & New-England Railroad, from Boston to Newburgh, runs across interior Connecticut for 132 miles, with branches to Worcester and Springfield, and to New London, connecting daily with steamboats for New York. Trains by this route from Boston or Providence to New York run down to Willimantic, where some of them pass through Middletown, and others through Hartford, in either case reaching New Haven, and thence following the shore. The running time from Boston to New York is six hours; and these commodious and swift-running trains, with their parlor and dining-cars, form a favorite mode of travel for business men, between the great cities. The line traverses a picturesque region, and gives passing views of many interesting places. The great bridge which carries this line across the Connecticut River

WATERBURY: CITY HALL AND BRONSON LIBRARY.

at Hartford was erected by the Boston Bridge Works, and is a triumph of engineering. The Central New-England & Western Railroad (closely allied with the New-York & New-England) runs westward from Hartford to the Hudson River, crossing on the great Poughkeepsie Bridge. The north and south lines include the Housatonic, from Bridgeport, on the Sound, to the Berkshire Hills; the Naugatuck; the New-Haven & Northampton; the New-York, New-Haven & Hartford, reaching northward to Springfield, and forming part of the great Springfield line from Boston to New York; the route following the Connecticut River from Hartford to the Sound; the New-London & Northern, reaching up into Vermont; and the Norwich & Worcester. The Thames-River Railway bridge, built at New London, in 1888-9, is a great and ingenious steel structure, with a draw-bridge 503 feet long, and containing 1,200 tons of steel. The iron truss-bridge at Warehouse Point, crossing the Connecticut River, rests on 17 granite piers. It was built at Manchester, England, in 1866. Connecticut has 13,000 miles of wagon-roads, costing $650,000 a year, and fairly kept up. Steamboat lines connect Stonington, New London, New Haven and Bridgeport with New York: and others cross Long-Island Sound, from New London and Hartford to Sag-Harbor; from Bridgeport to Port Jefferson; and from New London to Block Island.

HARTFORD: SOLDIERS' MEMORIAL ARCH.

HARTFORD: CHARTER-OAK RACE-TRACK.

The Finances of Connecticut are wisely and cautiously administered, owing partly to the even balance of the political parties. The net State debt amounts to $1,240,000; and the cities and towns owe about $17,000,000, mainly due to the enormous expenses of the Secession War, to railroad subsidies, and local improvements in water-supplies, sewerage-systems, and streets. The yearly expenses of the State are $1,200,000, one third of which goes to the schools and the judiciary, the remainder being used for other public purposes.

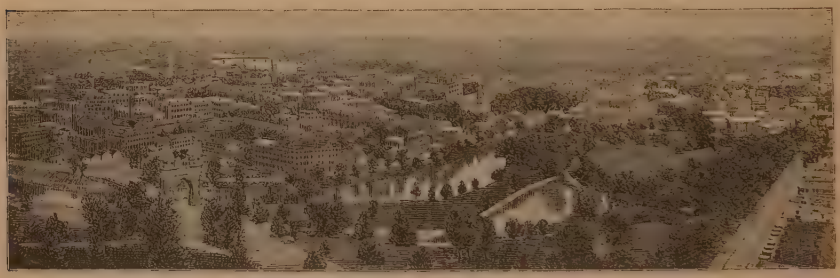
Chief Cities.—New Haven, with its many manufactures and the great Yale University, lies at the head of a fine salt-water harbor, stretching over an alluvial plain, and overlooked by abrupt and picturesque hills. It is famous for the noble elms which overarch its streets, and has many fine public buildings and churches.

Hartford, the capital city, lies along the navigable Connecticut River, and has great manufacturing interests, numerous converging railways, many handsome churches and public

NORWICH HARBOR AND THE THAMES RIVER.

buildings, benevolent institutions, schools and libraries. Here dwell Mrs. Stowe, Mark Twain and Charles Dudley Warner. The city is said to be the richest, for its population, in America; and has a world-wide fame for its immensely wealthy insurance-companies.

Bridgeport is a railway and steamboat centre, 56 miles east of New York, with a wonderful variety of manufactures, of sewing-machines, corsets, cartridges, and many other articles. It is a handsome city, adorned with pleasant parks, and a magnificent esplanade road looking out from Seaside Park over Long-Island Sound. To the westward is tranquil old Fairfield, one of the most refined and charming villages on the Sound. New London looks out from its hill-streets over the openings of the Thames to the aristocratic summer-villas and hotels along the Sound. It has many antique mansions and immemorial elms; and in the chancel of St.-James Church is buried Samuel Seabury, the first American Episcopal Bishop



HARTFORD, THE CAPITAL OF CONNECTICUT.

(1784). In summer, steamboats run from New London to Fisher's Island, Watch Hill, Block Island, Shelter Island, Long Island, and other places. This was once a renowned whaling-port, and now manufactures silks and woolens.

At Norwich, a beautiful little city at the head-waters of the Thames, is the grave of the great Indian chieftain, Uncas. A simple monument, marking the grave, was dedicated with ceremonies in which Andrew Jackson took part. There is also a memorial stone, marking the spot where Miantonomi was slain by Uncas. Mrs. Lydia Sigourney; T. Sterry Hunt, the Canadian scientist; President Gilman, of the Johns-Hopkins University; President Timothy Dwight (second), of Yale, and Donald G. Mitchell were natives of Norwich. Stonington, perched on its narrow rocky point at the east end of the Sound, remembers August, 1814, when the *Ramilies*, *Pactolus*, and other British war-ships, bombarded it for three days. At the other end of the State are Stamford and Greenwich, now practically suburbs of New York, with the beauty of architecture, lawns and flowers added to their natural seaside charms. Among the inland towns are Waterbury, on the Naugatuck, with handsome churches and great factories; New Britain, a rich industrial hive among the hills; Middletown, beautifully placed on a great bend in the Connecticut; Winsted, harnessing Mad River into its iron and steel works; and Meriden, near a picturesque range of hills, and containing the great Britannia works among its many large and varied industries.

Insurance has found its best and fullest development in Hartford, whose corporations are famous all over the world for their enterprise, integrity and permanent merit. So vast are the operations of these companies, that they carry risks exceeding $1,000,000,000. In 1794 Sanford & Wadsworth insured William Imlay's house, in Hartford, "against Fire, and all dangers of Fire," in the name (assumed and unofficial) of the Hartford Fire Insurance Company. This was the first fire-insurance policy known in the United States. Daniel Wadsworth and others, in 1810, organized the actual Hartford Fire Insurance Company, with $150,000 capital (one tenth paid in), and no expenses save $300 a year to the secretary, and $30 for fire-wood.

HARTFORD: HARTFORD FIRE-INSURANCE CO.

In 1835 the great fire in New York caused a loss to the company of $60,000 (an immense sum in those days); but Eliphalet Terry, its president from 1835 to 1849, pledged his own property to the Hartford Bank, and hastened in a sleigh to New York, where he met all the obligations of the company, and established its reputation on a high plane, which has been honorably maintained to the present time, when it ranks among the foremost insurance companies of the age. Its loss of $1,968,000 in the great Chicago fire was bravely met, but necessitated the paying in of $500,000 new capital. The capital now is $1,250,000, with assets of not far from $6,000,000. The company erected the handsome granite building which is now its home, in 1870, during the presidency of George L. Chase (which has lasted since 1867). The business inaugurated by the Hartford Fire-Insurance Company has developed in the city of its origin more energetically than anywhere else. Hartford leads the United States in fire-insurance, and is most widely known from this feature of its activity. There are six local companies, with assets of above $25,000,000, and an aggregate capital of $10,000,000; and they pay $5,000,000 yearly in losses. Besides these six, there are only nine other companies in America with capitals of as much as $1,000,000 each. Among all these gigantic corporations, none enjoys a greater confidence than the pioneer company, the venerable and conservative, yet always enterprising, "Hartford Fire."

HARTFORD: CONNECTICUT MUTUAL LIFE-INSURANCE COMPANY.

One of the most beautiful buildings in Hartford—a six-story Renaissance edifice of granite, erected in 1870, at the corner of Main and Pearl Streets—belongs to the Connecticut Mutual Life-Insurance Company, which was chartered in 1846, and became the foundation of the vast life-insurance business which distinguishes Hartford in the nation. Starting with a guarantee fund of only $50,000, it won an immediate and brilliant success, and has gone forward with steadily increasing strength. In 44 years, up to 1890, the company received over $220,000,000, and paid out to policy-holders $140,000,000, with $25,000,000 for expenses and taxes, leaving a balance of $56,000,000 as net assets. This colossal trust-fund is invested safely and productively, and its profits wholly inure to the benefit of the insured, the surplus being returned during each year to those who have contributed towards it, so that each policy-holder gets his insurance at its actual cost. It stands among the foremost corporations in the world, not only of life-insurance, but of any kind. The predominating aim of the solid Connecticut Mutual Life, under the competent presidency of Jacob L. Greene, is to furnish the greatest amount of absolute protection to the families of the insured, and to furnish this protection at the lowest possible cost. The Connecticut Mutual is in fact a pure and simple life-insurance company, conducted unswervingly in the best interests of its thousands of policy-holders.

Another interesting department of Hartford insurance is devoted to accidents. About 20 years ago, after a series of terrible railway accidents, the Railway Passengers' Assurance Company of England came into being. James G. Batterson, returning from Italy to Hartford, studied into this scheme while in England, and in 1863, organized, at Hartford, The Travelers Insurance Company, of which he is still the president, its office being a carpetless upstairs room with two chairs and a legless pine desk, and the present secretary, Rodney Dennis, being also the only clerk and office-boy. The company now occupies the

HARTFORD; TRAVELERS INSURANCE COMPANY.

fine old Ellsworth mansion, on the quiet and embowered Prospect Street. The life-department of the Travelers is virtually an individual life-insurance company, and one of the foremost. Its business is purely on the stock plan—a low cash rate, without dividends to policy-holders. The record of the Travelers stands absolutely untarnished from its foundation. The company has assets of $13,000,000, and a surplus exceeding $3,500,000. It has paid nearly $13,000,000 to victims of accidents, and $5,000,000 to policy-holders in the life-department. *The Travelers Record* is a bright little monthly paper issued by the company, bristling with facts and arguments in favor of casualty insurance. This is the largest and most successful accident and purely stock life-insurance company in the world. As in all other successful undertakings, the work of the "Travelers" has found many competitors; but in keeping with its age and pioneership, the old Travelers of Hartford remains unapproached in its supremacy in this broad field of effort.

HARTFORD: HARTFORD STEAM-BOILER INSURANCE COMPANY.

The Hartford Steam-Boiler Inspection & Insurance Company was evoked in the old Polytechnic Club, where Tyndall's suggestions and Sir William Fairbairn's experiments as to the explosion of boilers were exhaustively discussed. The company was chartered and began operations in 1866, and during a quarter of a century has successfully labored to create a demand for its protective agencies. It insures more than 30,000 boilers, and in case of explosion or rupture, makes good all loss to property, with indemnity for loss of life or personal injury, to an amount not exceeding the sum insured. The work of the company is mainly directed to the cure of defects and the prevention of disaster, and it has a hundred skilled and trained inspectors, who at stated times thoroughly examine the boilers under its care. Incipient defects are hunted out and remedied, and thus many lives and millions of dollars' worth of property have been saved yearly. It is not only the pioneer company in its line, being many years older than any other, but it is also far the strongest and most successful. Since 1867 it has been under the presidency of J. M. Allen, to whom is due the chief credit for the formulation and development of boiler inspection and boiler insurance, and its general introduction.

Manufactures.—Connecticut, as it now is, is a creation of this century, based in large degree on the ingenuity of her inventors and the individual ability of her workmen. The famous Connecticut Joint-Stock Act of 1837, framed by Theodore Hinsdale, is the basis of modern manufacturing corporations, and has been copied by nearly every State, and by the English Limited Liability Act of 1855. The principle thus originated and defined in Connecticut has been of vast and incalculable importance in the industrial development of the modern world.

The last report of the Connecticut Bureau of Labor Statistics enumerates 90 large establishments, in 20 lines of industry, employing 28,256 persons, paying wages amounting yearly to $12,500,000, and manufacturing upwards of $45,000,000 worth of goods, with a net profit of $3,800,000. The laws limit the work of women and children to 60 hours a week, and compel children under 13 years of age to attend school. The first of these statutes is obeyed, and the other suffers from evasion. Since 1860 the wages of men have been advanced 43 per cent.; and those of women 57 per cent. Industrial warfare breaks out from time to time, resulting from the conviction of the workmen that their share and opportunities are being diminished. An acute English

HARTFORD: HARTFORD-COUNTY COURT-HOUSE.

observer thus pictures the ingenious local mechanics: "The work-shops of Massachusetts and Rhode Island, and especially of Connecticut, are full of such men. Usually tall, thin, reflective and taciturn, but clever, and above all things free—the equals, although mechanics, of the capitalists upon whose ready alliance they can count—they are an element of incalculable value to American industry."

BRIDGEPORT: WHARF SCENE.

With respect to certain alleged local industries, it is well said, in Reclus's *A Bird's-Eye View of the World:* "The manufactures of wooden nutmegs, wooden oats, and basswood hams are located precisely where they always were—in the imaginations of lumbering wits."

Among the products of local industries are the axes of Collinsville, the clocks of Bristol and Thomaston, the powder of Hazardville, the knives of Northfield, the carpets of Thompsonville, the plush and silver of Seymour, the bank-note paper of Manchester, the farming implements of Winsted and Higganum, and the bells of Chatham.

This land of peace has furnished armaments to contending nations, bringing the raw materials from distant points, and by the ingenuity of her mechanics fashioning them into weapons of terribly destructive power. The Gatling guns, Colt's fire arms, and the Hotchkiss multicharge guns come from Hartford; the Winchester rifles, from New Haven; the Parker guns, from Meriden; millions of cartridges from Bridgeport; and pikes and machetes from Collinsville. The works at Hazardville made $1,250,000 worth of powder for Great Britain during the Russian War.

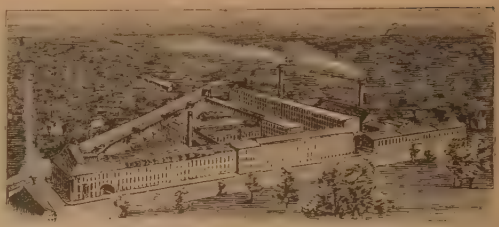
HARTFORD: ALLYN MEMORIAL.

Samuel Colt, the son of a Hartford manufacturer, while yet a lad, beguiled the tedium of a voyage to Calcutta (in 1830) by inventing and making a model of a revolver, which he patented in Europe and America in 1835, and began to manufacture in 1836. These weapons were first used in the Seminole War, and then in the Mexican War. In 1848, Colt built a factory in Hartford; and in 1855 finished the great dike around the South Meadow, and the magnificent Colt's Armory, where, during the Secession War, as many as 136,000 revolvers and 50,000 muskets were turned out in a single year. All of the famous Gatling guns have been made by Colt's Company. Colt's Patent Fire-Arms Manufacturing Company was incorporated in 1856. Its products have been carried into every quarter of the earth, and will continue to be in demand until the coming of the golden age. The machinery and methods employed are of wonderful ingenuity and delicacy, the parts of the weapons being interchangeable. The armory is the largest private concern of the kind in the world, and sometimes employs 1,500 men. Besides revolvers, the works now turn out great numbers of magazine rifles, hammerless shot-guns, Gatling guns, and printing-presses. In 1890 they began to make the Driggs-Schroder rapid-fire guns, one, three and six pounders, much resembling the Hotchkiss guns, but simpler in mechanism.

The last argument in a frontier dispute, or in a trouble between the white and black races in the South, or between Apache and Arizonian, is usually a Winchester rifle, or, briefly, a Winchester. The same conclusive debaters were used in vast numbers in the last war between Turkey and Russia, shattering the still-

HARTFORD: COLT'S PATENT FIRE-ARMS CO.

ness of the Balkans and the Danube with Connecticut weapons, held by opposing lines of battle. Many European and Asiatic nations have armed their choice troops with these rifles, provided with ammunition from the same New-England source. Thousands of sportsmen, also, wander through the forests and over the prairies with these fire-arms over their shoulders. The world-renowned Winchester Repeating Arms Company, organized in 1858, and incorporated in 1866, employs 1,500 men, and several thousand complicated and ingenious machines, in its great modern works, covering many acres with brick buildings, in a lovely suburb of New Haven. The famous weapon made here was first the Jennings gun; then the Volcanic repeating rifle; then the Henry rifle; and, finally, the Winchester, from O. F. Winchester, its maker. It had become such a combination of patents, that no one name held it, and it took the name of the manufacturer.

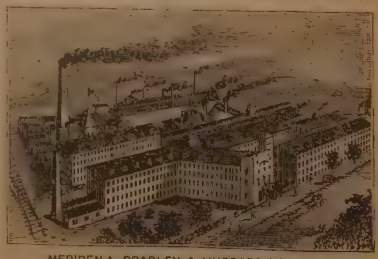


NEW HAVEN: WINCHESTER REPEATING ARMS CO.

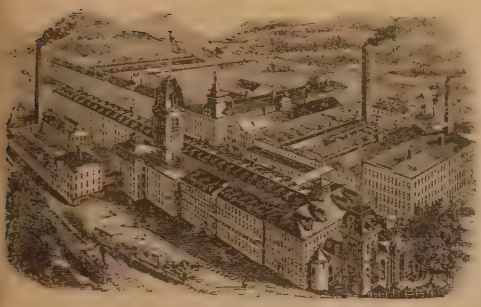
While the flint-lock has given way to the percussion-lock, and this in turn to the breech-loader, the science of ammunition has more than kept pace with these changes; and the trained officers of the foremost European governments have been sent to the works of the Union Metallic Cartridge Company, at Bridgeport, in order to transfer its incomparable system to their own arsenals. Although these famous works make over a million cartridges daily, they never overtake the demand, but are driven to their fullest capacity all the time. It is the largest and most famous cartridge-factory in the world, and produces a vast variety of explosives, from small revolver ammunition up to Gatling cartridges, with brass and paper shot shells, caps and wads, reloading implements, and an immense number of military cartridges. The machinery is so true and accurate in its operations that it almost seems to be possessed of reason, and dispenses with a vast amount of manual labor. The highest revolver scores on record have been made with cartridges manufactured by this company; and all the famous marksmen of America use no ammunition except that of their make. Among the many interesting and uncommon industries of Bridgeport, none is of greater interest or wider fame than that of the Union Metallic Cartridge Co., whose products are found in all lands.

BRIDGEPORT: UNION METALLIC CARTRIDGE CO.

The experience and study of more than a third of a century have wrought wonders in the transformation of the base metals into forms of enduring beauty and high artistic value. One of the chief factors in this change is the Bradley & Hubbard Manufacturing Company, which was founded in a small way by the men whose name it bears, in 1854, and now employs more than a thousand operatives, including many of the most skillful artisans in America. Their immense works at Meriden are equipped throughout with the most improved machinery, and produce rich and beautiful art-metal goods, including bronzes, card-tables, easels and mirrors; also fenders, andirons and fire-sets, besides gas and electric fixtures for dwellings or public buildings. The "B. & H." lamps, simple in construction, and



MERIDEN: BRADLEY & HUBBARD MFG. CO.



MERIDEN : MERIDEN BRITANNIA CO.

safe, and yielding a powerful white and steady light, are among the best in the world. The size adapted for piano, banquet, hanging and table lamps is of 75 candle-power, while that used for stores, halls, etc., is of 400 candle-power. The extension piano-lamps, in wrought iron, polished brass or silver, with their "B. & H." burners, have won general recognition in American homes for their usefulness and beauty.

Among the most artistic of the developments of Connecticut genius are the varied products of the Meriden Britannia Company, founded in 1852, and now including ten acres of floor space in their great factories, wherein 1,200 skilled artisans are engaged. Their silver-plated ware is honestly made, of the best materials, and with a continually advancing standard of artistic beauty, to keep abreast of the æsthetic spirit of the age. The spoons and forks bearing their trade-mark, 1847 -Rogers Bros., A 1, are found on millions of American tables. In the great maze of substantial brick buildings at Meriden the most interesting processes may be followed, from the entrance of the raw material until its completion in forms of unusual and permanent beauty. This is the most extensive establishment of the kind in the world; and has prosperous salesrooms at New York, Chicago, San Francisco, London, and Paris, and a branch factory at Hamilton, Ont.

Thread is a small enough matter, but it takes upwards of 30,000,000 miles of it yearly to keep their clothes on the American people. A large part of this is furnished by the Willimantic Linen Company, the chief American corporation making all the numbers of six-cord sewing-cotton from the raw material, and using each year the product of 3,000 acres of Sea-Island cotton-land, to make nearly 9,000,000 miles of thread. Each day this company makes 250,000 spools or 28,000 miles of thread, in 5,000 varieties and 300 colors and shades. It was long supposed that the moist and equable climate of Scotland was essential in spinning yarn for fine thread; but the Willimantic Company, by steam-heating and atomized moisture, has created in the heart of variable New England an area of unvarying warmth and humidity, superior for the purpose even to the climate of the Caledonian land. There are several large and orderly stone mills, besides the famous No. 4, built in 1881, which covers more ground than any other textile mill in the world. The operatives, mostly American women and girls, number 1,500, with bright and comfortable homes, a public library, and other pleasant things. Intelligence is necessary in this industry, and all the operatives must be able to read and write. The long and fine-stapled Sea-Island cotton, the most expensive in the world, is freed from seeds and dirt by the picker machine; unsnarled by the carding-machine; drawn into ribbon-like "slivers;" re-combed, roved, spun into yarn, twisted into thread, washed, bleached, dyed (if colored), spooled, labeled, and boxed. The excellence of the result is attested by a cabinet of medals awarded at different expositions, as well as by the experience of the thousands of house-mothers all over America.

WILLIMANTIC : WILLIMANTIC LINEN CO.

The silk-mills owned by Cheney Brothers, at South Manchester and in Hartford, are a series of spacious brick buildings, of plain but solid construction, and containing a large amount of delicate and ingenious machinery. The product is about $4,000,000

SOUTH MANCHESTER: CHENEY BROS. SILK-MILLS.

a year, in plain silks, plushes, pongees, printed silks, crapes, and other goods. There are over 2,000 operatives in these mills. In South Manchester their homes are mostly owned by the company, and are of simple design, but afford a good degree of comfort. The village is not crowded around the mills. Every house has some space about it, the result being to scatter the population; while the homes of the mill-owners stand in an unfenced park of several hundred acres, more nearly adjacent to the mills than those of the employees, and made attractive by wide lawns, trees, and shrubbery. The sanitary conditions are good, and the scenery of the surrounding country diversified and agreeable. A public hall and a free library contribute to the pleasures of life.

The great mills at Rockville, owned and operated by Belding Brothers & Co., are mainly used for the making of spool silk, and employ nearly 700 persons. Although these works have been repeatedly enlarged and provided with spacious annexes, they are entirely inadequate to supply the demand, and the Beldings have established complete mills also at Northampton (Mass.), Montreal (P. Q.), Belding (Mich.), and San Francisco (Cal.). Among the products of this chain of silk-mills, reaching across the continent, are embroidery and wash art-silks (in 360 colors), machine-twist, spool and embroidery silks, piece goods, and very fine and delicate silk hosiery and underwear, all made by the latest and most ingenious machinery. The main Belding offices are in New York. This colossal business, with its five completely equipped factories, 3,000 operatives, and daily consumption of over a ton of raw silk, was founded in 1863 by Messrs. M. M., H. H., A. N., and D. W. Belding, who started in a small way, retailing silk from house to house, in the country towns of Connecticut and New York.

ROCKVILLE: BELDING BROS. & CO.

The Ponemah Cotton Mills, among the largest in the world, are on the Shetucket River, near Norwich. They are a quarter of a mile long, and employ 1,800 persons, consuming 6,500 bales of cotton yearly, and making 20,000,000 yards of fine cotton cloth. The textiles woven here are recognized in the trade as the finest cotton or white dress goods ever produced in this country. The village of Taftville has grown up around the mills, and is largely owned by the company, which furnishes its people with pleasant homes at small expense. The mills are handsome buildings, architecturally, and have immense and costly equipments of the most modern machinery, efficient for the great and exquisitely fine product which is demanded of them. The work of developing this manufacturing power began in 1867, and the mill machinery was started in 1870. The capital stock of the company is $2,000,000, and the mills have 130,000 spindles, whose fine products find a ready market all over the country.

TAFTVILLE: PONEMAH MILLS.

The first woolen mill in America was established in Hartford, in 1788, and made crow-colored goods, Hartford gray and Congress brown. At the inauguration ceremonies of April 30, 1789, President

HARTFORD: DWIGHT, SKINNER & CO.

Washington, Vice-President Adams, and the Connecticut Congressional delegation, wore suits of Hartford cloth, and Washington afterward visited the mill. The cloth sold at from $2.50 to $5 a yard; but the country was so poor after the Revolution that the pioneer mill run for only six years. The industry revived again, with tremendous energy and prosperity, and 25,000,000 pounds of wool are now used yearly in the factories about Hartford. President Harrison and Vice-President Morton were inaugurated in 1889, in suits of Hartford cloth. The industry thus firmly established has called up the collateral enterprise of buying and selling wools on a large scale, by such well-known houses as Dwight, Skinner & Co., of Hartford, founded in 1856, and now handling immense quantities of wool yearly. Much of this is "grease wool," just as it is sheared, and is bought and sold in this condition. The concern has a large scouring plant at Windsor Locks, near Hartford, where they clean and scour 4,000,000 pounds of wool every year. This purified grade is sold to the leading manufacturers. The wools used by Dwight, Skinner & Co. come from all parts of the United States, and from Australia, Russia and Africa.

New England has an interesting aspect in its commercial side, in the number of strong copartnerships and corporations which have passed into their second half century of active business. Among these is the historic house of Beach & Co., which was founded away back in August, 1833, largely by the efforts of George Beach, Jr., son of George Beach, Cashier and President of the Phœnix Bank for 50 years, and a prominent member of Christ Church. For nearly 60 years Beach & Co. have stood at the head of the dyestuff trade in this section, and all the partners still bear the name of Beach. Besides their own product of dye-woods, indigo extracts and other goods of a similar character, they are the sole American agents for The British Alizarine Company's Alizarine, the Atlas Works Aniline dyes, and Mucklow's Elton Fold dyeing extracts. No small part of the beauty of American fabrics has come from the violet, malachite, berberine, mandarin, primrose, opal, blue, crimson, scarlet, and purple sent out from this establishment. Beach & Co. also do an extensive importing and exporting commission business, having reliable correspondents in the principal cities of the Old World, as well as in Australia and the Spanish islands. For many years they have received the bulk of the cochineal consumed on this continent, their celebrated J. R. G. being well known by all important consumers.

HARTFORD: BEACH & CO.

The Wheeler & Wilson Manufacturing Company, originally organized in 1853, at Watertown, moved to Bridgeport, its present location, in 1856. It was originated for the purpose of manufacturing sewing-machines, under the patents granted to Allen B. Wilson for inventions which were practically perfected by the co-operation of Nathaniel Wheeler; and it introduced to the public the first sewing-machines adapted to general use in families. The factories cover ten acres, and the plant comprises machinery and appliances for casting and metal-working, the manufacture of needles, and cabinet-work. There are 1,200 employees, who are of a higher grade than usual in manufactories of a similar character. This company has always employed the best

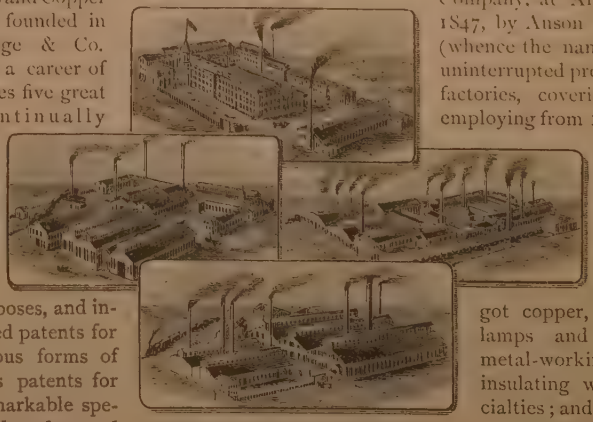
BRIDGEPORT: WHEELER & WILSON MANUFACTURING CO.

inventive talent and the most skillful workmen, and consequently has from the beginning stood among the foremost in the march of improvement in the art of sewing by machinery. Its products, well known throughout the civilized world, consist of sewing-machines for family use and for every grade of manufacturing in cloth and leather, together with button-hole machines and a number of specialities pertaining to mechanical stitching. The high esteem in which their labor-saving machines are held is attested by the fact that whenever the mechanical products of the world have been placed on competitive exhibition, the Wheeler & Wilson sewing-machines have been crowned with the highest honors. The successes at the World's Expositions at Paris, in 1867, Vienna, in 1873, Philadelphia, in 1876, and Paris, in 1878, were emphatically confirmed at the *Exposition Universelle*, Paris, 1889, at which the only grand prize for sewing-machines was awarded to the Wheeler & Wilson, and the Cross of the Legion of Honor was conferred upon Nathaniel Wheeler, the president of the corporation.

WATERBURY : SCOVILL MANUFACTURING CO.

The Scovill Manufacturing Company, another pre-eminent Connecticut industry, is one of the chief establishments of the bright little city of Waterbury, on the Naugatuck River. It dates its origin from the primitive days of 1802, when Abel Porter & Co. began the manufacture of gilt buttons, in one end of a grist mill. The establishment was incorporated under its present name in 1830, and its works now cover a dozen acres, and make up brass and copper into almost every form desirable for convenience or ornament. Thence come buttons by the million, electric wires, student-lamps, hinges, match-safes, and myriads of other articles, which are sold in all parts of the world. The company also has works in New Haven and New York, and agencies in New York and Chicago. The power for the first factory of this company was furnished by a single horse. The manufacture of buttons began here about 1790, when Samuel Grilley learned the art from an Englishman at Boston, and taught his brothers, Henry and Silas, at Waterbury. The buttons were of pewter, and when Silas Grilley and the Porters united, in 1802, the first brass buttons were made. Now the Scovill works are the crown of American brass and German-silver manufacturers, with a product of immense variety and value.

Another remarkable development of mechanical ingenuity appears in the business of the Ansonia Brass and Copper Company, at Ansonia. This industry was founded in 1847, by Anson G. Phelps of Phelps, Dodge & Co. (whence the name Ansonia), and has had a career of uninterrupted prosperity, until it now occupies five great factories, covering about 16 acres, and continually employing from 1,200 to 1,300 hands, with a pay-roll of nearly $900,000 a year. The company stands pre-eminent in its product of sheet-copper, and copper bottoms, copper wire for electrical purposes, and in-got copper, and controls over a hundred patents for lamps and chandeliers, and for various forms of metal-working. They also own Cowles's patents for insulating wire, and several other remarkable specialties; and produce great varieties of rods, tubes, and wire, besides lamps and



ANSONIA : ANSONIA BRASS AND COPPER CO.

chandeliers of every kind for kerosene oil. This company also manufactured clocks until 1878, when that part of their business was reorganized under the name of the Ansonia Clock Company, with factories in Brooklyn, New York, where they employ about 1,200 hands.

HARTFORD: BILLINGS & SPENCER CO.

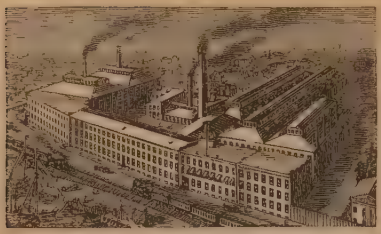
The art of pressing, stamping or forging hot metal, in dies of various forms, or drop-forging, gives results impossible to attain by hand-forging, and produces the most complicated and the simplest forms of forged work with admirable success. The pioneers in this craft were the Billings & Spencer Co., founded in 1869 by C. E. Billings, and even to this day making a much greater number and variety of drop-forged goods than any other American house. As representative of this line, the establishment received a diploma of merit at the International Exhibition of 1876 at Philadelphia. The products include 120 varieties of steel wrenches, and forgings for shuttles, guns, vises, chisels, thumb-screws, clamps, gauges, pliers, and a great variety of machinists' tools and other articles in iron, steel, and bronze. Another interesting specialty is drop-forgings from pure copper, for electrical machinery. The works of the Billings & Spencer Co. are at Hartford, and employ 125 men. Their products have reflected honor on American ingenuity at the great expositions of Vienna, Chili, Boston, and New York, where they have received medals and diplomas.

New Haven is celebrated all over the world for its carriages, embracing all lines of vehicles, from the light side-bar wagon, carrying one person, to the heavy and stylish brougham. This industry was one of the earliest to be founded in the city, and has met with a great development. New Haven also has a factory in which 2,000 persons are kept busy making rubber shoes; and an equal number are engaged in making corsets. The New-Haven Clock Co. were pioneers in their business, and have branch houses in other countries. Another prominent industry of the City of Elms is the manufacture of builders' hardware and coffin trimmings. In addition, there are engine, boiler and machine shops and foundries, and large piano and organ factories.

The steady and profitable development of manufacturing has been attended by a suspension of activity in the agricultural regions, which barely hold their own. Connecticut has thirty cities and towns having a population above 4,000; and these include 62 per cent. of the people of the State. The urban population continues to increase much more rapidly than that of the open country; and many of the pleasant farms of the hill-country are being allowed to enter upon a rest which may endure for centuries, or until new and unforeseen economic conditions restore the people to the love of Nature.

In former days the transmission of mechanical power was effected by costly and cumbersome systems of gearing, until the invention of leather belting afforded a better way. Pliny Jewell came down from New Hampshire to Hartford in 1845, and in 1848 began to make leather belts, being the third person in America to enter this business. P. Jewell & Sons devoted much time and energy, and persistent personal effort to educating American manufacturers to the use of belting, and their plant increased until it now represents an investment of $1,000,000, and includes the spacious Hartford factory, and large tanneries at Rome (Georgia), and Jellico (Tennessee), in the heart of the best oak-bark country. The green hides are rigidly inspected, and very carefully made up, by the latest improved machinery, into all sizes and shapes of belts. In 1883 the Jewell Belting Co. was organized; and the business of the corporation now reaches over a vast area.

HARTFORD: JEWELL BELTING CO.



BRIDGEPORT: EATON, COLE & BURNHAM CO.

The Eaton, Cole & Burnham Company, whose works are located at Bridgeport, is one of the foremost establishments in the world for the manufacture of all manner of brass and iron fittings for use in conducting steam, water, gas, and oil. These products include an immense variety of pipes, valves, cocks, radiators, cutting and threading tools, and other appurtenances, and are sold all over the American continent, as well as in Europe, being indispensable to the comfort of the people, and to the development of many of our great national industries. This commanding business dates from the year 1870, and was formed by the consolidation of the interests of the gentlemen whose names the company bears. It employs 800 men, with a yearly pay-roll exceeding $500,000, and uses vast quantities of iron, copper, tin, spelter and lead, in the production of the goods mentioned. The patents owned by the corporation include a great number of devices for rapidly and economically manufacturing their goods, as well as articles made by them for sale. Probably, no line of industry excels the one in which this company is engaged in point of the usefulness of the goods manufactured, to the people and to the world at large.

On the harbor-side at Bridgeport, with a fine deepwater channel along its front, and railways traversing its grounds, is the compact and serviceable plant, with two acres of flooring, of the Springfield Emery Wheel Manufacturing Company, the designers and maker of the largest variety of grinding machines. This business was founded at Springfield, in 1881, by the four Hyde brothers. In 1890, the new plant at Bridgeport was built, and thoroughly equipped for the manufacture of wheels from emery, and for a limitless variety of grinding machines in many different sizes and styles, for grinding and sharpening all sorts of implements and metal surfaces, from the delicate tools used in jewelers' shops up to heavy plowshares and car-wheels. These serviceable and indispensable machines are supplied with wheels made entirely of emery and corundum, which have a much greater grinding power and endurance than natural grindstones. Springfield wheels are in use by the United-States Government, the Edison and Westinghouse companies, and thousands of manufacturers. The Springfield Emery Wheel Co. also makes daily 150 reams of sapphire garnet paper, in several grades. This is a sandpaper whose coating is pulverized garnet, large mines of which are owned by the company.

BRIDGEPORT: SPRINGFIELD EMERY WHEEL CO.

The Pope Manufacturing Company stands preëminent in the world, in the manufacture and sale of bicycles. It founded the business in 1877, in Boston, by importing English machines, at a time when there was not a score of wheelmen in the Union (Col. Albert A. Pope, president of the company, being one). In 1878 the company began the manufacture of bicycles at Hartford, and their works now cover acres of floorage, where hundreds of the best New-England mechanics, aided by the finest modern machinery, make a yearly increasing number of high-grade Columbia bicycles, tricycles and "safeties" for men and women. This famous corporation has a large

HARTFORD: POPE MANUFACTURING CO.

office-building at Boston, branch-stores at New York and Chicago, and 600 agencies. By its early acquisition of patents, its strict adherence to one list of prices and discounts, its protection of dealers, and the repeated triumphs of its machines on the race-track and touring routes, this company has built up the greatest business of the kind ever seen in the world, and supplied the American people and others with many thousands of "silent steeds."

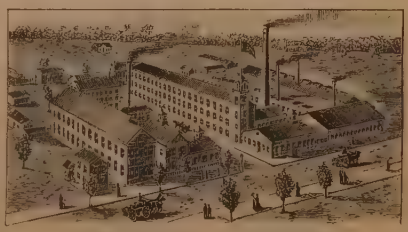
Connecticut not only manufactures almost everything needed in modern civilization, but she also provides the ingenious machinery for other people to manufacture with. One of the foremost institutions in this department is the Pratt & Whitney Company, whose works at Hartford employ 825 men (with an annual pay-roll of $500,000), making standard sizes and forms in gauges and reamers, taps and dies, automatic grain-weighers, forging machinery, machinists' tools for power and hand use, and a great number of other articles, its mere catalogue occupying hundreds of pages. From this establishment comes the entire working-plant of sewing-machine and gun factories. It supplied the German imperial gun-works at Spandau, Erfurt, and Danzig with admirable and costly plants; and has sent to Europe over $3,000,000 worth of tools and machinery. The company also makes for the United-States Government the Hotchkiss rapid-fire guns; and owns and manufactures the famous Gardner machine gun. With the co-operation of eminent scientific persons, and the United-States Coast Survey, this corporation after delicate and exhaustive comparisons constructed a machine for absolutely exact and uniform measurements, down to 1-50,000 of an inch. Up to that time American yards and feet were of an endless variety of lengths.

HARTFORD: PRATT & WHITNEY CO.

HARTFORD: PLIMPTON MANUFACTURING CO.

The stamped envelopes which bear American letters all over the world are all made in the fair Connecticut Valley, by the Plimpton Manufacturing Company, of Hartford, and the Morgan Envelope Company, of Springfield, in association. The first-named, founded by Linus B. Plimpton, in 1865, and incorporated in 1873, is now the largest producer of envelopes in the world, employing 500 operatives, and with a yearly output valued at $1,500,000. Nearly a billion envelopes are made in the Plimpton factories every year, 600,000,000 of them being for the Government. The marvellous mechanism and labor-saving contrivances invented and used in these processes turn out precise and perfect work at a great saving from handicraft, and are so carefully patented by the company that no one else can use them, or make envelopes so good and so cheaply.

At Middletown is the famous establishment of W. & B. Douglass, the oldest and most extensive manufacturers in the world of pumps and other hydraulic machines. No other house approaches its line of cistern and house force pumps, hydraulic rams, yard hydrants and hydraulic machinery. These goods have received the highest awards—gold and silver medals—



MIDDLETOWN; W. & B. DOUGLASS.

at the World's Expositions in Europe, America, and Australia. The Douglass cistern and house pumps are generally used in every country of the globe. The plant covers four acres, and the group of substantial brick buildings gives employment to 250 men. The business was founded in 1832 by William and Benjamin Douglass, and has always remained in the family, although it is nominally a stock company, with a capital of $600,000, and a surplus which gives to the establishment a value exceeding $1,000,000. Here are made 1,500 different styles of pumps and hydraulic rams, covering every use for houses, factories or farms.

The best representative of the enterprise, ingenuity, and perseverance of Connecticut was Phineas T. Barnum, whose museum, menagerie, hippodromes, and other public entertainments, have been the delight of two generations, in both the New World and the Old World. Other countries may question whether any of our generals, discoverers, poets, or historians have attained the first rank among the great men of the world, but all admit that America has produced the most illustrious showman of all time. The key-note of his career was sounded in his own cheery words: "The noblest art is that of making others happy," and for half a century he practiced this precept, to the benefit of millions of people. Born at Bethel, Conn. (in the year 1810), the son of a farmer and tavern-keeper, he showed in childhood a great aversion to agricultural labor, and a great liking and a special aptitude for business. At the age of 15, fatherless and poor, he was thrown upon his own resources and was successively clerk in a store, editor of a paper, village storekeeper, and exhibitor of Joice Heth, the alleged nurse of Washington. This last venture decided his vocation, and he became the head of a small travelling company of performers, and a showman. In 1840 he bought the American Museum, in New York, and since that time the magnitude of his undertakings and successes was amazing, and made him the pride of the American people, and won for him the personal favor of the sovereigns of Great Britain and France, and countless other dignitaries. His best known achievements include the discovery, naming and exhibiting of General Tom Thumb; the bringing of Jenny Lind to America; the purchase of Jumbo; the organizing in (1874) of "Barnum's Greatest Show on Earth;" and the transporting of the same to and from London, in the winter of 1889-90. "The Greatest Show on Earth" travels all over the United States and Canada, in 74 freight cars, and a Pullman train, moving by night, and giving performances, in tents seating 25,000 people, at all cities of more than 40,000 inhabitants. The winter-quarters, at Bridgeport, include elephant houses, where 40 elephants are luxuriously housed and trained; a lion and tiger house, kept at the required high temperature; quarters for camels and caged animals; a sea-lion and hippopotamus house, containing a great pond, artificially heated; chariot and train houses; blacksmith, paint, and carpenter shops; and a practice-ring for riders and acrobats. Upwards of 82,000,000 tickets have been sold for the Barnum exhibitions. This versatile Connecticut genius won other laurels than those of a showman. Of the books he wrote, more than a million copies have been sold. He lectured before the largest and best audiences in America and Europe. He laid out and built up the eastern half of Bridgeport. As a member of the Connecticut Legislature for several terms, and as Mayor of Bridgeport, he made an enviable official record. Bridgeport was Mr. Barnum's home for 45 years, and its parks, cemeteries, boulevards, and public institutions, founded by his generosity, and advanced by his wise supervision, bear witness to his practical philanthropy.

BRIDGEPORT: WINTER-QUARTERS OF BARNUM & BAILEY'S CIRCUS.

HISTORY.

The Delaware aborigines were of the Leni-Lenape stock, and included the Minquas, on the Iron Hills, and the Nanticokes, in the lowlands of the south. The former migrated nearly two centuries ago; the latter in 1748. Hendrick Hudson discovered Delaware Bay, in 1609, while hunting for the short cut to China, but put to sea when he reached shoal water; and a year later Capt. Argall sailed up the lonely expanse. The first white settlers were De Vries and 32 Hollanders, who founded a colony near the site of Lewes, in 1631. These pioneers all suffered massacre by the Indians. In 1638 Peter Minuit was sent out by Queen Christina to found here "a country in which every man should be free to worship God as he chose." He built Fort Christina, on the site of Wilmington, and garrisoned it with sturdy Swedes and Finns. The country received the name of *Nya Sveriga* (New Sweden); and for many years the peninsula remained under Swedish rule. In 1651 Gov. Stuyvesant came around from New Amsterdam, and erected Fort Casimir, on the site of New Castle, to hold these Baltic men in check; but on Trinity Sunday of 1654 they swarmed into the new fortress, and raised over it the banner of Sweden. Finally, however, the Dutch conquered and annexed the province, and all the Swedes who refused to accept their rule were shipped back to Europe. Together with New Amsterdam, Delaware passed, in 1664, from Dutch rule to that of the Duke of York, by whom, in 1682, it was granted to William Penn, and its delegates entered the Pennsylvania Legislature, the "Three Counties on Delaware" remaining under the Penn proprietary government until 1775, although after 1702 they had a distinct assembly. Delaware entered earnestly into the Revolution, and sent into the field a splendid Continental regiment, besides many militiamen under Gen. Rodney. Lord Beresford, in the *Roebuck*,

STATISTICS.

Settled at	Wilmington.
Settled in	1638
Founded by	Swedes.
One of the original 13 States.	
Population, in 1860,	112,216
In 1870,	125,015
In 1880,	146,608
White,	120,160
Colored,	26,448
American-born,	137,140
Foreign-born,	9,468
Males,	74,108
Females,	72,500
In 1890 (U. S. census),	168,493
Population to the square mile,	74 8
Voting Population (1880),	38,298
Vote for Harrison (1888),	12,973
Vote for Cleveland (1888),	16,414
Net State Debt (1890),	$811,762
Area (square miles),	2,050
U. S. Representatives (1893)	1
Militia (Disciplined),	604
Counties,	3
Cities,	1
Hundreds,	28
Post-offices,	160
Railroads (miles),	323
Manufactures (yearly),	$50,000,000
Farm Land (in acres),	1,100,000
Farm Land Values,	$37,000,000
Assessed Valuation of Property (1890),	$74,000,000
Average School Attendance,	22,000
Newspapers,	39
Latitude,	38° 28′ to 39° 50′
Longitude,	75° to 75° 46′
Temperature,	1° to 98°
Mean Temperature (Lewes),	54°

TEN CHIEF PLACES AND THEIR POPULATIONS. (Census of 1890.)

Wilmington,	61,431
New Castle,	4,010
Dover,	3,061
Smyrna,	2,455
Laurel,	2,388
Seaford,	1,462
Middletown,	1,454
Georgetown,	1,353
South Milford,	1,339
Milford,	1,226

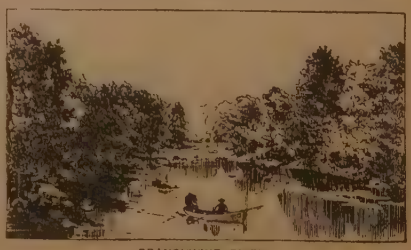
CAPE HENLOPEN AND REHOBOTH BEACH.

bombarded Lewes; and an odd little battery was set up afterwards before the town, which still faces the sea. Washington's army lay about Wilmington before the battle of Brandywine, but the British took Newark and Wilmington. Delaware was one of the original 13 States, and the first to ratify the constitution which formed the American Union. Therefore, upon occasions when the States are represented as States, she leads the right of the line. After the Secession movement began, the commissioners of Mississippi addressed the Delaware Legislature, urging the commonwealth to join the Southern States. This she refused to do, and sent into the National army nine regiments of infantry, a battalion of cavalry, and a light battery, whose services were marked by great valor.

The Name of the State commemorates Lord De la Warr. Sir Roger La Warr captured the King of France, at the battle of Poitiers, in 1356; and two centuries later one of his descendants fought so bravely at the siege of St. Quintin that he was created Lord De la Warr. His son married Queen Anne Boleyn's grand-niece, and among their children was the third Lord De la Warr, the first Governor of Virginia. Capt. Argall, a Virginian navigator, named Delaware Bay in honor of his chief, and this title gradually passed to the peninsula. It is sometimes entitled THE DIAMOND STATE, from its small size and great value. Delawareans are called *The Blue Hen's Chickens*. Capt. Caldwell, of her Continental Line, and a famous cock-fighter, maintained that no cock was game unless it came from a blue hen. He was also an admirable disciplinarian, and made his command one of the most efficient in Washington's army. They won the title of *Caldwell's Game-cocks*, and subsequently of *The Blue Hen's Chickens*; and so the army men got in the way of calling every Delawarean a Blue Hen's Chicken.

The Arms of Delaware bear a sheaf of wheat and an ear of corn, proper, in the upper part, and an ox, proper, in the lower. The crest is a ship under full sail, displaying the American flag. The supporters are a rifleman and a husbandman. The motto of the State is LIBERTY AND INDEPENDENCE.

The Governors have been: *Swedish:* Peter Minuit, 1638 41; Peter Hollendare, 1641 2; John Printz, 1642 53; John Papegoya, 1653 4; John Rising, 1654 5; *Dutch:* Peter Stuyvesant. *English Colonial:* Wm. Penn, 1700 21; Sir Wm. Keith, 1721 6; Patrick Gordon, 1726 38; George Thomas, 1738 45; James Hamilton, 1745 54, and 1760 5; R. H. Morris, 1754 60; John Penn, 1765 8, and 1773 7; Richard Penn, 1768 73; John McKinley, 1777 8; Cæsar Rodney, 1778 82; John Dickinson, 1782 3; John Cook, 1783; Nicholas Van Dyke, 1783 6; Thomas Collins, 1786 9. *State:* Joshua Clayton, 1789 96; Gunning Bedford, 1796 7; Daniel Rogers, 1797 8; Richard Bassett, 1798–1801; James Sykes (acting), 1801–2; David Hall, 1802–5; Nathaniel Mitchell, 1805–8; George Truitt, 1808–11; Joseph Hazlett, 1811–14, and 1823; Daniel Rodney, 1814–17; John Clark, 1817–20; Jacob Stout (acting), 1820–1; John Collins, 1821–2; Caleb Rodney (acting), 1822–3; C. Thomas (acting), 1823–4; Samuel Paynter, 1824–7; Charles Polk, 1827–30; David Hazzard, 1830–3; Caleb P. Bennett, 1833–7; C. P. Comegys, 1837–40; William B. Cooper,



BRANDYWINE RIVER.

1840-4; Thomas Stockton, 1844-6; Joseph Maul (acting), 1846; William Temple, 1846; William Thorp, 1846-51; William H. Ross, 1851 5; Peter F. Causey, 1855 9; William Burton, 1859 63; William Cannon, 1863-5; Gove Saulsbury, 1865 71; James Ponder, 1871-5; John P. Cochran, 1875-9; John W. Hall, 1879-83; Charles C. Stockley, 1883-7; Benjamin T. Biggs, 1887-91; and Robert J. Reynolds, 1891-5.

Descriptive.—Delaware is the smallest State in the Union, except Rhode Island, being but 93 miles in length, with a breadth varying from nine to 38 miles. The northern part is a fertile hill-country, with rapid streams flowing in deep valleys, oak and chestnut forests, granite and limestone ledges, and profitable deposits of porcelain-clay and iron-ore. It is a continuation of the lovely Chester County of Pennsylvania, with its grassy uplands. South of the Christiana the State is nearly level, having a plateau, or sand ridge, 70 feet high and several miles wide, following the western side. In Kent, eastward of the forest, lie 180,000 acres of rich alluvial "neck" land, with 60,000 acres of tidal marshes, some of which are dyked and reclaimed. Much of the south is a light sandy soil, bordered by lagoons, and melting off into the Cypress Swamp, covering 50,000 acres, filled with game, and pierced by salty inlets abounding in the finest fish and oysters. The marshy and clayey bay-shore is succeeded along the Atlantic by long and narrow sandy ridges, enclosing shallow lagoons, like Rehoboth Bay and Indian-River Bay, from three to five feet deep. The favorite seaside resorts are Rehoboth Beach, between the pine woods and the surf; Woodland, Bowers' and Collins Beaches, farther up the bay; and two or three other locally famous summer resting-places, with large hotels and cottages.

WILMINGTON: MONUMENT PLACE.

Delaware Bay is 13 miles wide between Cape Henlopen and Cape May; 25 miles in the middle; and three miles wide at Delaware City. The channel is tortuous, but has from 25 to 75 feet of water, and is the avenue of a vast commerce. Shad, herring, rock-fish, perch, sea-trout, sunfish, weakfish, croakers, spot, sheepshead, bass, terrapin, soft-shell crabs, and oysters abound in these waters; and the drum-fish of Mispillion, the milletts beyond Henlopen, and the lobsters and blackfish of the Breakwater are well known. Brandywine Creek comes down from Pennsylvania with valuable water-powers, and meets the navigable Christiana Creek at Wilmington. The chief of the other streams are Smyrna River, St. Jones River (navigable to Dover, the State capital), Murderkill, Mispillion River (navigable eight miles, to Milford), Broadkill, Indian River, and Broad River (navigable ten miles, to Laurel). The rivers of Sussex, once navigable for frigates, have been destroyed by the slow advance of the sand-dunes, which have buried many leagues of farm-lands. The Pocomoke, Choptank and Nanticoke rivers rise in Delaware, and flow across eastern Maryland into Chesapeake Bay. There are many estuaries along the coast, visited by small coasting craft, carrying away grain and sweet potatoes, oysters and timber. The proximity of Delaware and Chesapeake Bays gives great equability to the climate, and the winters are so short and mild that in the south cattle need little shelter. The north is colder, but very healthy, while the south suffers somewhat from intermittent fevers.

WILMINGTON: OLD SWEDES CHURCH.

Agriculture.—The 9,000 Delaware farms are valued at $37,000,000, and produce yearly 4,000,000 bushels of corn, 1,200,000 bushels of wheat, with oats and sorghum, and vast quantities of

berries and dairy products. In Kent, many tomatoes are raised and canned; and the north yields corn and amber wheat. Grapes and melons are exported, and 7,000,000 quart-baskets of strawberries yearly. The soil for ten miles in from the bay is rich, but beyond that limit it contains sand, and requires fertilizing. Amid the broad estates of the gentlemen-farmers, in an air of affluent peace, countless vineyards and orchards cover the country with lovely purple and crimson hues. Delmar, Laurel, Clayton, Wyoming, Seaford, Bridgeville, Georgetown, Milford, Harrington and Smyrna are among the shipping-points of the 55,000 acres of peaches. This fruit is of Persian origin, and attains its highest perfection on the Chesapeake peninsula. The trees are short-lived, and very sensitive to frosts, and of late years they have been seriously menaced by the destructive blight known as "the yellows." Maj. Reybold founded the industry of growing peaches for the general market, near Delaware City, just before 1860. In a single year the railway has carried 10,000 car-loads of peaches and 1,000 car-loads of berries. In 1888, the peninsula shipped 3,177,477 baskets (each five eighths of a bushel) of peaches. In 20 years, 55,000,000 baskets were produced here. Vast quantities are also freighted on vessels, or used in the canneries and evaporating works. The unprofitableness of the fruit and grain crops of the past few years has caused an immense depreciation in land-values, and farms are worth in some cases much less than they were a century ago, in the early days of the Republic.

PEACH GATHERING.

Along the cliffs of the Brandywine there are several large quarries of tenacious and even-grained granite. The abundant clays and kaolins of Wilmington are made up into bricks, terra-cotta, and crockery. These works employ 350 men. The fine spar quarried near Wilmington is used in making artificial teeth.

Government.—The governor serves four years, and appoints the judges and executive and county officers (except sheriffs and coroners), but has no veto power. The General Assembly, of three senators and seven representatives from each county, meets at Dover in January of each odd-numbered year. The National Guard includes a regiment of infantry and two troops of cavalry. There is a Gatling-gun squad, and the Delaware-college cadets have a two-gun battery. Yearly encampments are held, at Rehoboth, Brandywine Springs, and elsewhere. Delaware owns interest-paying securities exceeding the amount of her liabilities, and is therefore practically out of debt, and does not assess or tax real or personal property for State purposes. Its revenue is derived from general business licenses, bank stock and capital, and insurance companies. The railroads pay a lump sum to the State of above $80,000 a year, in lieu of other taxes. The Delaware townships are called "hundreds," after an English custom older than King Alfred's day, and the county representative boards are called Levy Courts. More than half the population dwells in the little north county. One sixteenth of the people are foreigners, and one sixth are colored. Only one third dwell on farms. Convicts are kept in the county jails, paupers in the county almshouses, and blind, idiotic and deaf-mute children in Pennsylvanian training-schools. Every county jail has its pillory and whipping-post, where condign punishment falls upon the backs of male thieves and other felons.

WILMINGTON: HIGH SCHOOL.

Education has greatly improved since the act of 1875, and is paid for by local taxation and the revenue of a State fund begun in 1796, from the proceeds of marriage and tavern licenses, and augmented in 1836 by Delaware's share of the United-States

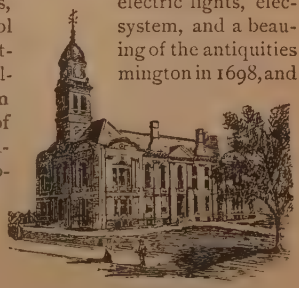
Treasury surplus. Colored people's school-taxes are set apart for 4,000 colored children, in the 70 schools under the voluntary Delaware Association for the Education of the Colored People, which receive also State appropriations. Delaware College, founded in 1833, at Newark, "The Athens of Delaware," near the Iron Hills, became a State college in 1870, and has since had periods of prosperity and depression, but is now improving. The institution has seven professors and 100 students, and maintains military drill, under the direction of an army officer. The Agricultural Experiment Station is connected with the college. The Friends' School, at Wilmington, dates from 1748, and has eight instructors and 185 students. The Academy of Newark opened in 1768, and has 100 pupils. The Wilmington Conference Academy, at Dover, is a prosperous Methodist school. The chief libraries are the Wilmington Institute, founded in 1787, and the State Library, founded in 1793, each with 16,000 volumes. Delaware has six daily newspapers (four English and two German), all at Wilmington, and 30 weeklies.

WILMINGTON.

The Methodists have 166 churches in Delaware; the Presbyterians 32, the Episcopalians 27, and the Catholics, Friends and Baptists eight each.

National Institutions.—The United-States Government finished the great Delaware Breakwater in 1828. It has a surf-breaker of 2,748 feet, and an ice-breaker of 1,710 feet, and stretches into the sea like a mighty black arm, protecting yearly many thousands of vessels. To the southward projects Cape Henlopen, with a long white beach, and lonely sand-dunes and landward marshes. Fort Delaware, near Delaware City, mounts 155 guns, but is not garrisoned. Lewes is a quaint old maritime hamlet, the headquarters of the Delaware-Bay pilots. There are 18 light-houses on the coast, with a supply depot at Edge Moor. There is a tradition that the Dutch Greenland Company planted the flag of Holland at Lewes in 1598, and placed a colony here 24 years later. In view of its marshes, John Randolph of Roanoke once said that the Delaware senators represented three counties at low tide, and one county at high tide. Jefferson called Delaware "the diamond in the coronation of States" (whence its pet name).

Chief Cities.—Wilmington, the metropolis of the State, lies upon both sides of the Christiana River and the rapid Brandywine. Both are tide-water streams, and the Christiana serves as an excellent harbor. The city occupies a gently rolling upland, and is steadily extending over the diked and drained meadows to the Delaware River, which flows along its eastern boundary for a league. At this point, 65 miles from the ocean, and 28 miles below Philadelphia, the Delaware has a width of three miles, with 30 feet of water at mid-tide in its shoalest parts. Wilmington (formerly named Willing-ton) was the first permanent European settlement in the valley of the Delaware. It has a high-school, with manual training, 23 public schools, electric lights, electric street-cars, a fine water department, a police patrol system, and a beautiful natural park along the Brandywine. The most interesting of the antiquities of Delaware is the Old Swedes Church, founded at Wilmington in 1698, and the recipient of funds from William Penn, a Bible from Queen Anne, and a communion service from the miners of Sweden. It belongs to the Episcopalians, and its ivy-clad-brick walls rise amid an ancient graveyard. Dover, the capital, is an ancient and pleasant town, with wide and shadowy streets and a mild climate, six miles from Delaware Bay. In the old Episcopal church-yard a tall granite monument was raised, in 1889, to Gen. Cæsar Rodney, the Revolutionary patriot. Fruit-canning centres here,


WILMINGTON: COUNTY COURT-HOUSE.

WILMINGTON: P. W. & B. STATION.

and the delicious canned plum-pudding of Dover is shipped to England and France. New Castle, one of the quaintest of ancient boroughs, was named for and colonized by the city of Amsterdam, and then captured by Sir Robert Carr, who sold its Dutch garrison for slaves in Virginia. It is on the bay, five miles below Wilmington.

The Railroads of Delaware converge at Wilmington, through which pass the Pennsylvania and Baltimore & Ohio lines, each running southwestward from Philadelphia to Baltimore and Washington. The Pennsylvania Company leases the Delaware Railroad, running from Wilmington to Delmar and beyond, with branches to the Maryland ports on the Chesapeake, and to Delaware City, Bombay Hook, Lewes, Rehoboth, Ocean City, and other points.

The Chesapeake & Delaware Canal was finished in 1829. It has cost $3,800,000, and runs for 13½ miles across the neck between the heads of the two great bays. It is nine feet deep, with two tide and two lift locks, having a rise and fall of 32 feet; and is in constant use.

The Manufactures of Delaware amount to over $50,000,000 a year, their most notable feature being Wilmington's iron steamships, built for the Long-Island Sound and Hudson-River lines, the Morgan, Cromwell and Pacific-Mail lines, and the routes from Boston to New York, Philadelphia and Baltimore. Several war-ships have been built here; and also the yachts *Volunteer*, *Priscilla*, *Electra*, and *Nourmahal*. Wilmington also has immense car-shops; and near by are the DuPont Mills, the largest gunpowder-making plant in the world, founded in the year 1802.

WILMINGTON: B. & O. STATION.

Wilmington is in communication with the coal and iron country of Pennsylvania, and the local iron and steel works employ 6,000 men, and produce yearly $11,000,000. Other industries, cotton, paper, pulp, carriages, and ships, engage 11,000 persons, with a yearly output of $27,000,000. The favorable quality of the Brandywine water has drawn to Wilmington 2,000 workers in morocco and leather, whose product is $5,000,000 a year.

The Edge Moor Bridge Works are close to Wilmington, on the Delaware River, and employ 700 men. The grounds cover 25 acres, and the punching, forging, riveting, machine and blacksmith shops, and the offices and steam-plant and electric-light plant buildings, are substantial structures of brick and stone. Here also are the latest improved machinery and most complete appliances for the manufacture of all kinds of structural iron and steel work. A large portion of the machinery has been specially designed for these works; and the Edge Moor Company first introduced the hydraulic riveting of compressive members, and the hydraulic forging of tensile members. Metal roof frames, structural work of iron and steel, and railway turn-tables are made here. But the chief industry of this great establishment is the construction of bridges, and among its products have been the East-River Bridge, with its 7,000 tons of fitted steel work; the Kentucky-River Bridge, the first cantilever bridge in America; the Susquehanna-River Bridge of the Pennsylvania Railroad, the largest double-track bridge in the world; the Northern-Pacific, Sabula and Minnehaha bridges, over the Mississippi; the Rulo, Omaha and Sibley bridges, over the Missouri; the Wheeling and Ceredo bridges, over the Ohio; the James-River Bridge, at Richmond; the Sixth-avenue Elevated Railroad, in New York; and the Pennsylvania Railroad's elevated line in Philadelphia, the Edge Moor company being both engineers and constructors.

EDGE MOOR BRIDGE WORKS.

HISTORY.

The Federal Capital stands on the banks of the beautiful Potomac River, within reach of the salt-sea tides, and between the sections which a quarter of a century ago were separated by such hostile interests. Its site was bought of the Indians by an Englishman named Francis Pope, who settled here in 1663, and named the place Rome, calling the creek which flows into the Potomac the Tiber, and the elevation on which the U.-S. Capitol now stands the Capitoline Hill. This eccentric and unconscious prophet used to sign himself "Pope of Rome."

During the Revolution the National Government moved from town to town, to avoid the British armies. After the war several States claimed the seat of government, to be established as defined by the Constitution, not to exceed ten miles square, and to remain under the exclusive legislation of Congress. In 1788–9 Maryland and Virginia each offered such districts, and Congress in 1790 accepted, specifying the present location. There were two burning sectional questions before the Congress of 1790, one as to the payment by the Government of $20,000,000 of war-debts, incurred by the individual States (mainly in the North) during the Revolution, and the other as to the location of the National capital on the Potomac. The Southern Congressmen opposed the former, and the Northerners the latter, prefering a site on the Susquehanna or the Delaware. Jefferson and Hamilton finally united to secure concessions on both sides, whereby the South allowed the financial bill to pass, and the North consented to the location of the capital on the Potomac. George Washington became acquainted with the locality when a youthful surveyor, and again when an officer of Braddock's army, which encamped at Georgetown. He secured the land from the proprietors, to whom the Government deeded back half the city-lots. The obscure Maryland hamlets

STATISTICS.

Settled at	Washington.
Settled in	1663
Founded by	Englishmen.
Organized,	1790
Population in 1860,	75,080
In 1870,	131,700
In 1880,	177,624
White,	118,006
Colored,	59,618
American-born,	160,502
Foreign-born,	17,122
Males,	83,578
Females,	94,046
In 1890 (U. S. census),	230,392
Population to the square mile,	2,960.4
Net Public debt,	$21,000,000
Assessed Valuation of Property (1890),	$153,000,000
Area (square miles),	70
U. S. Representatives	0
Militia (disciplined),	1,475
Counties,	1
Post-offices,	11
Railroads (miles),	31
Manufactures (yearly),	$12,000,000
Farm Land (in acres),	18,000
Farm-Land Values,	$3,600,000
Public Schools,	90
School Children,	30,000
Newspapers,	65
Latitude,	38° 51′ to 39° N.
Longitude,	76°58′ to 77°6′ W.
Temperature,	—14° to 104°
Mean Temperature,	54.7°

CHIEF SECTIONS AND THEIR POPULATIONS. (Census of 1890.)

The District is now under one municipal government, that of Washington, with 230,392 inhabitants. The part of this covered by *old* Washington has 188,932 inhabitants; *old* Georgetown, 14,046; Mount Pleasant, 3,000; Anacostia, 2,000; and Brightwood, 1,000.

of Funkstown, or Hamburg (at Observatory Hill) and Carrollsville (on Arsenal point) were blotted out, and the Federal City came into theoretical existence. The magnificent system of avenues was planned by Major L'Enfant, and laid out by Surveyor Andrew Ellicott. In 1791 the new public domain received the official title of the Territory of Columbia; and the Federal City became the City of Washington.

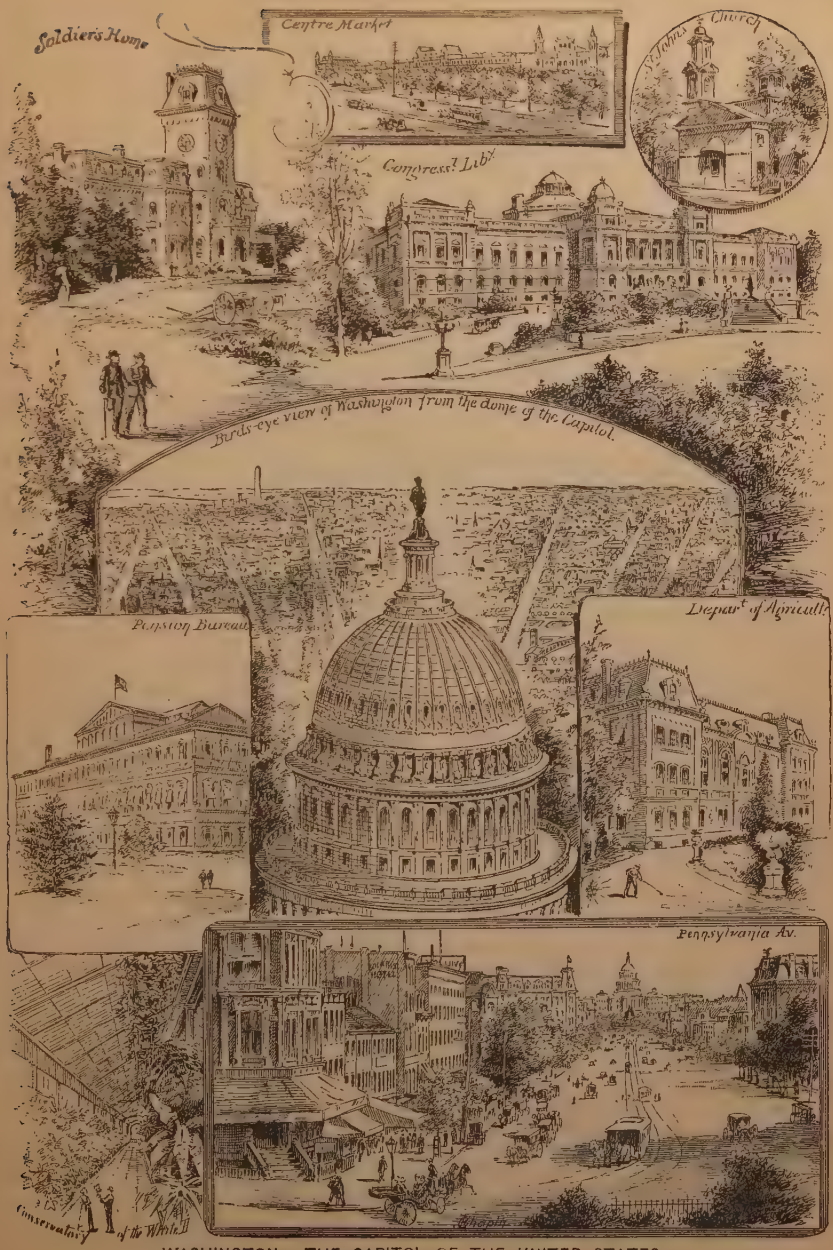
In 1800, when the city had 3,000 inhabitants, the north wing of the Capitol being finished, the public archives were transferred in a sloop from Philadelphia, and Congress held its first session here. "The capital of miserable huts" was likened to the Serbonian bog; and Pennsylvania Avenue formed only a cleared line through a morass of alder-bushes. In 1814 a British army of 4,500 men routed the American militia at Bladensburg, and occupied Washington, destroying the public buildings. No Government edifices having been erected on the western side of the Potomac, Alexandria and Virginia petitioned that that part of the District should be retroceded to Virginia; and this was done, in 1846.

The city was menaced by the Confederate troops at the outbreak of the civil war, until the night of May 23, 1861, when Wood's column crossed the Aqueduct, Heintzelman moved over Long Bridge, and Ellsworth occupied Alexandria. During the subsequent war, the defenses of Washington consisted of 68 forts, mounting 905 cannon and mortars, with 93 batteries for field-guns, and 20 miles of rifle-pits. These works covered a perimeter of 37 miles, and had a garrison of many thousand men. They saved the capital from assault after the various reverses of the Federal armies in Virginia; and in 1864 repelled by their guns an attack in force by Gen. Early's army.

On May 23 and 24, 1865, Washington rejoiced in the grandest military display ever seen in America, when the bronzed veterans of the National armies marched in review past the President. On the first day came the Army of the Potomac, headed by Gen. Meade, Merritt's Cavalry Corps, Macy's Provost Guards, Benham's Engineer Brigade, Parke's 9th Corps, Dwight's Division of the 19th, Griffin's 5th and Humphrey's 2d. The next day Sherman and his men marched through the jubilant streets, with Logan's Army of the Tennessee, containing Hazen's 15th Corps and Blair's 17th, and Slocum's Army of Georgia, composed of Mower's 20th Corps and Davis's 14th Corps.

After 1871 Alexander R. Shepherd, Governor Henry D. Cooke, and other progressive citizens of the District, secured the authority to take adequate measures to "lift Washington out of the mud." The government thus organized raised money by local taxation and by the sale of District bonds, and set an army of laborers to grading and paving, parking and tree-planting. Within ten years $25,000,000 were spent in improving the city. As a result, Washington rose from a rambling Southern town to the position and dignity of a true cosmopolitan city, beautiful in situation and in architecture, and a continental centre of scientific and literary culture. Washington received incorporation as a city in 1802, and its mayors were elected by the people until 1871, when Congress revoked the charter. The District is named in honor of Columbus, the discoverer of America. The only governors the District has had were Henry D. Cooke, in 1871–3, and Alexander R. Shepherd, in 1873–4.

Descriptive.—Washington lies on the Potomac River, 106½ miles from Chesapeake Bay, and 185½ miles (by ship-channel) from the ocean, between the Anacostia (or Eastern Branch), a broad and shallow tidal river, once navigable to Bladensburg, and Rock Creek, a picturesque hill-stream. The undulating surface of the District is surrounded by elevations of from 150 to 400 feet, Washington being built within this amphitheatre, with Capitol Hill rising to a height of 90 feet. The soil is a fairly fertile light sandy loam and clay, resting on cretaceous rocks, and supports about $4,000,000 worth of farms and market-gardens. There are many oaks, hickories, pines, chestnuts, butternuts, elms and lindens. The climate is healthy, although the summers have the high mean temperature of 75°, with southerly winds. A flurry of cold weather occasionally diversifies the mild and pleasant winters, but snow does not lie long, and the Potomac freezes across only in

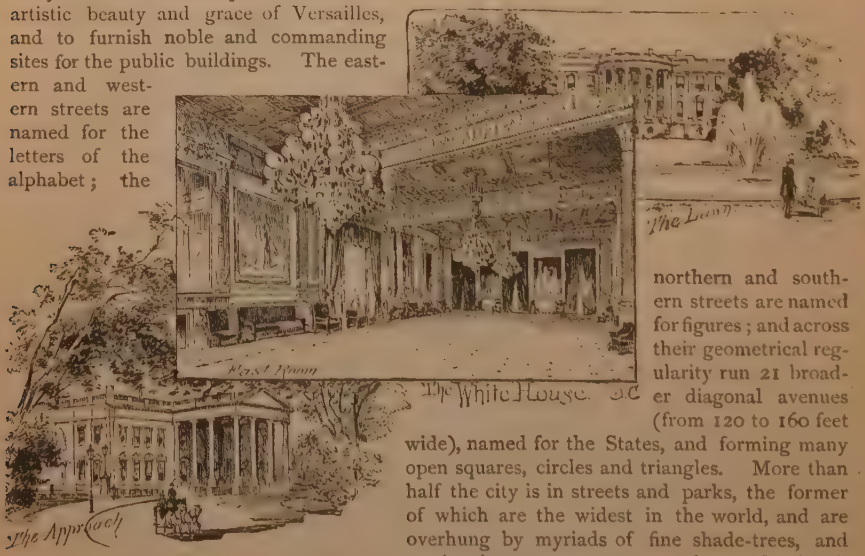


WASHINGTON: THE CAPITOL OF THE UNITED STATES.

January. The mean temperature is nearly the same as that of San Francisco. The city is farther south than Vienna or Rome. The District is more populous than seven of the States and Territories. It has 2,200 Britons, 3,500 Germans, 8,000 Irishmen, 29,000 Virginians, 34,000 Marylanders, 6,000 New-Yorkers, 5,600 Pennsylvanians, and 4,500 New Englanders. One third of the inhabitants are colored.

The manufactures are unimportant, except for the well-known flour-mills of Georgetown. The Potomac is navigable for large vessels up to Georgetown. It yields abundantly of fine herring, shad, perch, bass, enormous sturgeon and other food-fish. Georgetown is the port of entry, but has only slight remains of its ancient commerce with England and the West Indies. 472 vessels, of 28,196 tons, are owned here; and steamboats run to the Potomac ports, Norfolk and Baltimore.

The plan of Washington was designed by the French military engineer, l'Enfant, under the advice of Jefferson, who, while in the diplomatic service, had carefully studied the great capitals of Europe. It is a successful endeavor to combine the practical straight lines of Babylon and Philadelphia with the artistic beauty and grace of Versailles, and to furnish noble and commanding sites for the public buildings. The eastern and western streets are named for the letters of the alphabet; the northern and southern streets are named for figures; and across their geometrical regularity run 21 broader diagonal avenues (from 120 to 160 feet wide), named for the States, and forming many open squares, circles and triangles. More than half the city is in streets and parks, the former of which are the widest in the world, and are overhung by myriads of fine shade-trees, and partly given up to narrow parks. Nearly all the residence-streets, covering sixty miles, are paved with asphalt, forming a luxurious and durable roadway to drive upon. Massachusetts Avenue is the grandest of the thoroughfares, over five miles long, from the Anacostia River to Kalorama Heights and Rock Creek, traversing high ground, with an imperial width of 160 feet, and adorned for a full league with two rows of overarching lindens on each side. Pennsylvania Avenue is of nearly equal length, and its section leading from the shining colonnades of the Capitol to the noble temple-front of the Treasury Department is the main street of the city. It is one of the brightest, laziest and most historic and interesting streets in America, and Washington and Hamilton, Jefferson and Lafayette, Lincoln and Grant have trodden its level walks. No other city in the world is so magnificently shaded, for there are upwards of 120,000 trees on the 120 miles of its streets. The region northwest of the White House was formerly known as "The Slashes," and furnished pasturage for cows, goats and geese. It is now one of the handsomest of residence-quarters, covered with modern



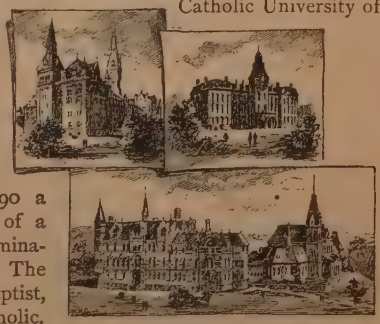
brick and stone houses of distinctive character, the foreign legations, and homes of senators and cabinet-officers, set amid green lawns and beds of bright flowers.

In 1871 the city and county governments were replaced by a Territorial government, with a Governor, a board of public works, and a legislature, and a delegate in Congress. The enormous debt incurred by the Board of Public Works, in transforming and improving the city, caused Congress to break up the Territory in 1874, and vest the municipal executive powers in three commissioners, two of whom are civilians and one a U.-S. Engineer officer, appointed by the President. There is a Supreme Court of six justices, with other tribunals and officials. The law is the common law of England, with enactments of the State of Maryland, modified by acts of Congress and the several local municipal governments which have been in force here. Residents of the District have no right to vote on National or local questions; yet, the municipality is the best governed in America. The legislative power rests entirely in Congress. The District Court House was built in 1820–49, and served until 1871 for the city hall. The debt is in a sinking-fund, of which the Treasurer of the United States is commissioner. The revenues arise from taxes levied on private property and privileges, to which Congress adds an equal amount by appropriations. The yearly expenses of the District amount to over $5,000,000.

OBSERVATORY.

The water-supply comes from the Potomac, above Great Falls, fourteen miles distant, and is capable of giving Washington a more copious supply than any other city in America receives. The largest stone arch on the continent carries this aqueduct across Cabin-John Creek. The city markets are famed for their profusion and cheapness of provisions, and draw their supplies largely from the Maryland and Virginia farms.

The schools are very efficient and successful, and attendance is general. There are different public schools for white and colored children. Columbian University was opened in 1822, and has classical, medical and law departments, with 20 professors and 323 students. It occupies an imposing structure of brick and terra cotta, with handsome lecture-halls and museums, not far from the Treasury Department. Howard University was founded in 1867, mainly for colored persons, and has collegiate, theological, law, medical, commercial, normal and preparatory schools, with nearly 500 students. Georgetown University was founded by Bishop Carroll in 1789, and is prosperous and finely equipped, with classical, medical and law schools, 61 instructors and 550 students (largely from the South), a library of 45,000 volumes, and a magnificent site on the heights above Georgetown, looking down the Potomac for many miles. It is the oldest Catholic college in the United States, and has a corps of learned Jesuit professors. Gonzaga College is a Jesuit high-school, founded in 1858, with 150 students. The Catholic University of America, incorporated in 1885, occupies a beautiful site of 65 acres on the highlands near the Soldiers' Home. The first department opened (in 1889) was that of divinity, with 7 professors and an endowment of $500,000. The Paulists have a house of studies here, and will be followed by other religious orders, forming a mediæval city of scholastics. The Methodists bought in 1890 a tract of 90 acres near Oak View, for the site of a National university. There are several other seminaries and schools of law, pharmacy and theology. The city has nearly 150 churches, 40 Methodist, 25 Baptist, 20 Presbyterian; 18 Episcopalian and 12 Catholic. Among the Episcopal churches are St. Paul's, at Rock



1. GEORGETOWN UNIVERSITY. 2. HOWARD UNIVERSITY. 3. COLUMBIAN INSTITUTE.

Creek, founded in 1719; Christ, near the Navy Yard, founded in 1795, and the church of Jefferson and Monroe; and St. John's, near the White House, founded in 1816, and attended by Madison, Jackson and Arthur. The First Presbyterian Church was attended by Jackson, Polk, Pierce and Cleveland, and also by Webster, Benton, Houston and other statesmen. The New-York Avenue Presbyterian Church was Buchanan's and Lincoln's place of worship. Grant worshipped at the Metropolitan Methodist Church; Hayes at the Foundry Methodist Church; John Quincy Adams at the old Unitarian Church; Garfield at the Christian Church; and Benjamin Harrison at the Presbyterian Church of the Covenant.

CATHOLIC UNIVERSITY OF AMERICA.

The Government Hospital for the Insane, on the noble heights south of the Anacostia, contains 1,500 patients, from the army and navy and insane residents and temporary residents of the District. It dates from 1855, and occupies a cultivated park of 419 acres. The Columbian Institution for the Deaf and Dumb was founded by Amos Kendall, for District people and children of soldiers and sailors. Here is the National Deaf-Mute College, the only one in the world, with eight teachers and 60 students. Its handsome pointed Gothic building of sandstone was erected by the Government in 1870–1, on the pleasant Kendall-Green estate of a hundred acres.

The railroads are the Baltimore & Ohio and the Baltimore & Potomac, both running to Baltimore, and the former also passing from Washington westward to the Ohio Valley. The famous Long Bridge carries the tracks which unite the Maryland and Virginia railway systems. The District has serviceable and far-reaching street-railways, extending across the city in every direction, and to various suburban villages.

By the War Department's *Official Table of Distances*, on the "shortest usually travelled routes," Washington is 230 miles from New York, 458 from Boston, 115 from Richmond, 673 from Savannah, 1,349 from Key West, 1,001 from Mobile, 1,110 from New Orleans, 1,521 from Galveston, 1,829 from Brownsville, 553 from Cincinnati, 813 from Chicago, 894 from St. Louis, 1,223 from St. Paul, 1,810 from Denver, 2,374 from Salt-Lake City, 3,167 from San Francisco, 3,122 from Portland (Oregon), and 4,484 from Sitka.

Amid the grand avenues and parks of Washington rise the magnificent and spacious administrative offices of the Government, representing an outlay of above $100,000,000, and forming a group of edifices unrivalled elsewhere. The Capitol of the United States is one of the most majestic buildings in the world, in grandeur of form and richness of material, its glistening dome and vast walls and colonnades of Massachusetts and Maryland marble rising like a snowy exhalation from the deep green of the surrounding parks, and visible from leagues away on the Virginian hills. The old north wing was founded by Washington in 1793, and finished in 1800, and the old south wing dates from 1811. Destroyed by the British in 1814, the edifice was rebuilt in 1817–27. In 1851 the architect commenced the new extensions, the House occupying the present hall in 1857, and the Senate in 1859. The great iron dome arose in the terrible years 1856–65. The chief architects of the Capitol were B. H. Latrobe of Maryland, in 1803–17; Charles Bulfinch of Massachusetts, in 1817–51; Thomas M. Walter of Pennsylvania, in 1851–65; and Edward Clark of Pennsylvania. The cost of the Capitol and its furnishings has probably exceeded $30,000,000. The first troops arriving in Washington early in the Secession War converted the building into a fortress, and during the battle-years work was steadily carried forward on the Capitol, it being President Lincoln's opinion, that the cessation of these

GEORGETOWN UNIVERSITY.

constructive labors would dispirit the soldiers of the army. The Capitol stands on the western brow of Capitol Hill, with its main front toward the plateau on the east, and the other side overlooking the city and its great departmental palaces, the broad estuary of the Potomac, and the lonely hills of Virginia. The building is in rich classic architecture, and covers three and a half acres, being composed of a central structure, containing the Rotunda and Library, and a north wing for the Senate Chamber and a south wing for the House of Representatives. Each of these sections has imposing colonnaded porticoes, the chief of which, on the eastern side of the central edifice, is the place where the Presidents are inaugurated. The dome, 307½ feet high and 135½ feet in diameter (and exceeded in size only by St. Peter's, St. Paul's, the Invalides and St. Isaac's), is crowned by a peristyled lantern, above which stands Crawford's majestic bronze statue of Freedom, 19¼ feet high. This huge dome contains 4,000 tons of iron, arranged to move during atmospheric changes like the folding and unfolding of a lily, and frequently painted a glistening white. It overarches the Rotunda, 96 feet in diameter and 180 feet high, adorned with historic busts and bas-reliefs and eight large historical paintings, with Brumidi's vivid allegorical fresco of the Apotheosis of Washington overhead. The view from the top of the dome is of wonderful beauty and interest. For a long time the Confederate forts and troops were visible from the unfinished colonnades of this architectural marvel. The Capitol is crowded with interesting scenes; the historic halls of the two houses of Congress (of which that devoted to the Representatives is the largest legislative hall in the

THE CAPITOL, FROM THE EAST.

world); the grand porticoes, with their wealth of statuary and Corinthian columns; the bronze doors, unequaled outside of Florence, and covered with statuettes and reliefs, the discovery of America, the life of Columbus, the Revolutionary battles, the inauguration of Washington; the Library of Congress, the largest in America, containing 640,000 books, and abounding in rare treasures of literature; the beautiful Supreme-Court Room, used in old times as the Senate Chamber, and now the seat of the highest legal tribunal in America; the sumptuous reception and committee rooms and corridors; the President's Room, the most richly decorated in America; the Marble Room, of Italian and Tennessee marble, called the finest apartment of the kind in the world; the wonderful marble staircases of the legislative wings, with their great paintings of Chapultepec, the Battle of Lake Erie, and Westward the Star of Empire takes its way; the huge Doric columns of the crypt; and the National Statuary Hall, an impressive Greek chamber, of noble dimensions, adorned by each State with statues of two of its most illustrious sons. This unrivalled hall was used by the House of Representatives from 1808 to 1814, and from 1817 to 1857, and witnessed the triumphs of Webster and Clay, Randolph and Calhoun, Adams and Corwin, and other leaders of the Republic. The statues now here are William King of Maine; Ethan Allen and Jacob Collamer of Vermont; John Winthrop and Samuel Adams of Massachusetts; Williams and Greene of Rhode Island; Sherman and Trumbull of Connecticut; George Clinton and Livingston of New York; Stockton and Kearny of New Jersey; Fulton and Muhlenberg of Pennsylvania; Baker of Oregon; Garfield and Allen of Ohio, and Lewis Cass of Michigan. Here also are David D'Anger's statue of Jefferson, Stone's Hamilton, Mrs. Hoxie's Lincoln, and Houdon's Washington.

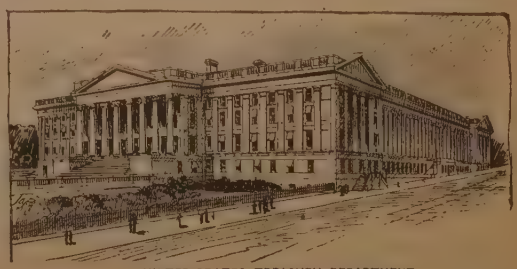
The President conducts the Government administration by nine departments, State, Treasury, War, Navy, Interior, Post-Office, Justice, Agriculture and Labor, whose heads he appoints, subject to confirmation by the Senate. All but the last belong to the Cabinet.

The State Department administers the external policy of the Government by nearly 1,300 persons in consular service and the legations. The so-called Department of Foreign Affairs was re-named the Department of State, in 1789, and has charge of the negotiation of treaties and diplomatic correspondence, grants passports, and guards the seal of the United States. In the event of the President and Vice-President dying in office, the Secretary of State succeeds them (Act of 1886). The State, War and Navy Departments occupy an enormous quadrangular structure, erected in 1871–88, at a cost of $10,500,000, and the largest granite building in the world. It covers four and a half acres, and has twenty acres of floor-space. Its huge blocks of light-gray Virginia and Maine granite weigh from half a ton to twenty tons each, and will outlast centuries. The State Department occupies the south wing, built in 1871–5. The original Declaration of Independence and Washington's sword and commission are kept in this building. The heads of the State Department have been Jefferson, Randolph, Pickering, Marshall, Madison, Smith, Monroe, Adams, Clay, Van Buren, Livingston, McLane, Forsyth, Webster, Legaré, Upshur, Nelson, Calhoun, Buchanan, Clayton, Everett, Marcy, Cass, Black, Seward, Washburne, Fish, Evarts, Frelinghuysen, Bayard and Blaine.

STATE, WAR AND NAVY DEPARTMENTS.

The Treasury Department cost $8,000,000, and covers an area of 582 by 300 feet, including two enclosed courts. The east front was built in 1836 41, with a colonnade in the style of the Athenian temple of Minerva Pallas; and the other three fronts arose in 1855–69, in noble Ionic architecture, with broad porticoes and many huge monolithic pillars. The material of these three fronts is Maine biotite granite, in cyclopean blocks; and the Cash Room is lined with rare marble from Vermont, Tennessee, Italy and the Pyrenees. The huge vaults of steel and chilled iron contain the National-Bank bonds and scores of millions of dollars in silver and gold coin. The Department of the Treasury was organized in 1789, and has charge of the finances of the Republic, mints, currency, internal revenue, customs, receipts, life-saving service, steamboat inspection, marine hospitals, light-houses, statistics, and the coast and geodetic survey. It employs over 16,000 persons, 2,500 of them in the department proper. Among its chiefs have been Hamilton, Gallatin, Crawford, Rush, Woodbury, Guthrie, Cobb, Chase, McCulloch, Boutwell, Bristow, Sherman, Manning, Fairchild and Windom.

The War Department occupies the central and the northern and western wings (built in 1878–89) of the vast granite palace where the State Department dwells, and has 1,500 clerks and 3,000 men employed outside. This is also the headquarters of the Army, consisting of 27,000 men, in ten regiments of cavalry, five of artillery, and 25 of infantry, and distributed over the Military Divisions of the Atlantic, the Missouri (including the Departments of the Platte and Dakota), and the Pacific (Departments of California and the Columbia), and the independent Departments


UNITED-STATES TREASURY DEPARTMENT.

of Arizona, the Missouri and Texas, which report direct to Army headquarters. The Division of the Atlantic includes Louisiana and all the States east of the Mississippi River, except Illinois. The Secretary of War arranges all details of the military service, transportation, and the purchase of supplies for the army. The Quartermaster-General and 1,800 employees see to the transportation, clothing and quarters of the Army; the Commissary-General and 70 men provide subsistence for the troops; the Surgeon-General has 1,000 persons to help him, and the Paymaster-General has 140. The Chief of Engineers looks to the fortifications, rivers and harbors, and bridges; the Chief of Ordnance is in care of the artillery, arsenals, weapons and munitions; the Judge-Advocate General is in charge of the Bureau of Military Justice. The Adjutant-General and his 200 officials regulate the correspondence, recruiting and general discipline of the Army; and the Inspector-General inspects forts and posts, accounts, personnel and materiel of the Army. Among the heads of the War Department have been Knox, Pickering, McHenry, Dexter, Dearborn, Eustis, Armstrong, Monroe, Crawford, Calhoun, Barbour, Porter, Eaton, Cass, Poinsett, Marcy, Cameron, Stanton, Belknap, Endicott and Proctor.

INTERIOR DEPARTMENT: THE PATENT OFFICE.

The Navy Department, in the eastern wing (built in 1872–9), supervises the American fleets, their building and equipment, manning and employment. The bureaus are those of Yards and Docks, Navigation, Ordnance, Equipment, Provisions and Clothing, Medicine and Surgery, Construction and Repair, and Steam Engineering. The Naval Observatory, with a Warner & Swasey telescope, the Hydrographic Office and the Nautical-Almanac Office are also under the Navy Department. There are 250 clerks in the department, and 3,800 employees outside. The Navy includes 8,250 sailors and 2,000 marines, in 80 vessels, carrying 300 guns. The fleets remained under the direction of the Secretary of War until 1798, when the Department of the Navy came into being, and the Marine Corps was organized. Among its heads have been Crowninshield, Dickerson, Paulding, Upshur, Bancroft, Mason, Toucey, Welles, Robeson, Chandler, Whitney and Tracy.

The Interior Department covers two squares, nearly midway between the Capitol and the White House, with its immense and massive facades and porticoes, in the Doric style, and mainly of glistening white Maryland marble. This edifice is one of the finest in Washington, and usually bears the name of the Patent Office, because its great halls contain myriads of inventors' models.

The Interior Department has nearly 10,000 persons in its service, under the Commissioners of Patents, Pensions, General Land-Office, Indian Affairs, Education, Railroads, Geological Survey, Inter-State Commerce, Pacific Railways and the Census. The south front of the structure dates from 1836–40, and the rest from 1849–67. The building contains 191 rooms, and cost $2,700,000. The Department of the Interior dates from 1849, and has numbered among its chiefs McClelland, Usher, Delano, Chandler, Schurz, Lamar and Noble. The earliest legislation about patents occurred in 1790; and the first Commissioner of Patents received his appointment in 1836. The Patent Office has no equal in the world, and admirably shows forth the ingenuity and enterprise of the American people.

INTERIOR CONGRESSIONAL LIBRARY.

The Post-Office Department occupies a rich and ornate Corinthian structure of white marble, begun in 1839, oppo-

site the Patent Office. It has 600 clerks, and an outside force of nearly one hundred and fifty thousand persons, including 63,000 postmasters (handling 4,000,000,000 pieces yearly), and 6,000 persons in the railway mail service. The 110 clerks in the Dead-Letter Office yearly treat above 6,500,000 pieces of mail-matter. The department began operations in 1789, and the Postmaster-General first became a Cabinet officer in 1829, in Jackson's administration. Among its chiefs have been Pickering, Habersham, Granger, Meigs, Kendall, Campbell, Blair, Creswell, Jewell, Vilas and Wanamaker.

The Department of Agriculture began its labors in 1862, and distributes yearly among the people over 1,200,000 packages of seeds, and myriads of vines and plants, besides several hundred thousand volumes of reports. It occupies a spacious and attractive building, in Renaissance architecture, on the Mall, between the Capitol and the Washington Monument, and is surrounded by rich gardens, beautiful flower-beds, Italian terraces, experimental grounds, arboretums and plant-houses. The museum and libraries contain vast collections. There are 400 employees, devoted to forestry, ornithology, pomology, seeds and other objects, with a botanist, chemist, entomologist, microscopist, statistician, and other officials.

UNITED-STATES POST-OFFICE.

The Department of Justice arose in 1870, and occupies a building near the Treasury, with nearly 2,000 persons in the service. The Attorney-General, its head, is the chief law-officer of the Government, and has been a Cabinet officer since 1789.

The Department of Labor (taking the place of the Bureau of Labor, organized in 1885) was constituted in 1888, to acquire and diffuse information about labor, capital, earnings, and the means of promoting the material, social, intellectual and moral prosperity of the working classes. Its head is Carroll D. Wright.

The White House, or Executive Mansion, stands between the Treasury and State Departments; surrounded by emerald lawns and noble old trees, and with views of the Potomac and the Virginian hills. It was built in 1792-1800, on the model of the Duke of Leinster's mansion at Dublin, and contains many beautiful rooms and works of art.

The U.-S. Coast Survey, a bureau of the Treasury Department, dates from 1807, and occupies a granite building near the Capitol. Here are kept the Standards of Weights and Measures for the States. The Coast Survey was "suggested by Jefferson, begun by Gallatin, organized by Hassler, and perfected by Bache, and is recognized by every learned body in the world."

BUREAU OF ENGRAVING AND PRINTING.

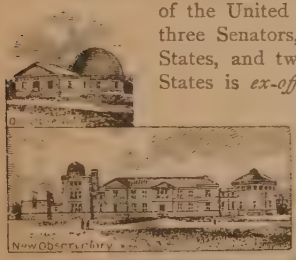
The Bureau of Engraving and Printing, with its 1,200 work-people, prepares all the paper money and bonds of the United States, in a building near the Washington Monument. The Government Printing-Office and Bindery is the largest in the world, and has turned out in a single year 200,000 pages of composition, in over 1,500,000 volumes. Many of these books have become famous for the perfection of their manufacture, as well as for their other merits. The office employs 2,700 persons, and pays out about $3,000,000 a year.

The Smithsonian Institution is a noble and picturesque Norman structure of red sandstone, many-towered and rambling, with cloisters, battlements and loopholes, and surrounded by the beautiful Mall, which was laid out by A. J. Downing. A fund of $515,619 was bequeathed in 1828, by James Smithson, an English scientist, to the United States, to

found "an establishment for the increase and diffusion of knowledge among men." The building was erected in 1847-66; and the Smithsonian fund in the United-States Treasury is $703,000. The interest of this fund is applied to original scientific research, the publication of "Contributions to Knowledge," in quarto form, of "Miscellaneous Collections" and "Annual Reports" in octavo, the promotion of explorations and collections in unknown parts of the globe, the free transmission of scientific and literary works of societies and individuals from the United States to all parts of the world, and the return in exchange of similar articles.

It has been entrusted by the Congress of the United States with the management of several important and constantly growing establishments, viz.: the "National Museum," the "Bureau of Ethnology," the "Bureau of International Exchanges," and the "National Zoölogical Park" in Washington City.

It is governed by a Board of Regents, consisting of the Vice-President and Chief Justice of the United States, and twelve other members appointed by Congress: three Senators, three members of the House, four citizens from different States, and two citizens of Washington. The President of the United States is *ex-officio* President of the Institution; the Chief Justice is the Chancellor. The executive officer is a secretary selected by the Regents, the present incumbent being Samuel P. Langley, the celebrated astronomer.



NEW NAVAL OBSERVATORY.

The National Museum is supported by annual appropriations made by Congress. Long before the Smithsonian Institution had commenced active operations, a society had been formed under the patronage of the Government for the purpose of organizing a National Museum. The collections made by the early Government expeditions were placed in the custody of the Smithsonian Institution, and these, together with others which had found a temporary shelter in the Patent Office, were in 1858 merged into the National collection. From this time the name of National Museum was conferred upon all the collections under the control of the Smithsonian Institution. In 1879 an appropriation was made by Congress for a separate museum building. This structure, covering two and a half acres of ground, and lying east of the Smithsonian building, was ready for occupancy in 1881. There are in the museum sixteen exhibition halls and 120 rooms, which are used as offices and laboratories by the scientific and administrative departments. There are nearly 3,000,000 specimens in the collections of the anthropological, zoölogical, botanical and geological departments. The collection of historical relics contains many objects of interest connected with the history of Washington, Franklin, Jefferson, Jackson, Lincoln, Grant and other distinguished American statesmen and officers of the Army and Navy. The valuable collection of Indian paintings by George Catlin is also on exhibition. The Museum is now visited annually by about 300,000 persons. Since the building was completed, in 1881, nearly 2,500,000 people have been registered by the door-keepers. The collections of antiquities, birds and shells are exhibited in the Smithsonian building.

SMITHSONIAN INSTITUTION.

The Army Medical Museum, which formerly occupied the old Ford Theatre, in which President Lincoln was assassinated, and is now in its new building, near the National Museum, contains 22,000 specimens, surgical, medical, microscopical, anatomical and miscellaneous. It is the largest and best collection of the kind in the world, and is frequented by many thousands of students.

The Surgeon-General's valuable Library in this building contains 100,000 books and 150,000 pamphlets. The Pension Building, covering two acres, is an enormous brick edifice, in the style of an Italian palace, surrounding a court, whose glass roof is supported by eight lofty pillars. The U.-S. Naval Observatory, on Georgetown Heights, has a group of nine modern classic buildings, designed by Richard M. Hunt, and is fully equipped with great telescopes. Warner & Swasey, of Cleveland (Ohio), designed and built the 45-foot and 26½-foot steel domes. The Congressional Library Building is now under construction, to be finished in 1895, $6,500,000 having been appropriated for it. The material is white New-Hampshire granite, and the courts are faced with ivory-white enamelled brick. The building is two thirds of the size of the Capitol, and the finest for the purpose in the world.

The Corcoran Gallery of Art, founded and richly endowed by the late W. W. Corcoran, a banker of Washington, contains one of the finest collections of pictures and statuary in America, including works by the old masters and modern European painters, and many specimens of our own art, by Leutze, Sully, Huntingdon and other American masters. It was opened to the public in 1874, and occupies a handsome building opposite the War Department.

The Government Botanical Garden, at the foot of Capitol Hill, covers ten acres with its conservatories and gardens, enriched with a great variety of native flora and rare exotics.

The U.-S. Navy Yard was acquired in 1799, and the *Wasp*, *Argus*, *Potomac*, *St. Louis*, *Brandywine*, *Minnesota* and other famous ships first entered the water here. It covers 27 acres, along the Anacostia River, about a mile from the Capitol; and has spacious barracks and workshops, and many trophies. The great National cannon-foundry is at the Washington Navy Yard, and has the finest and most improved machinery for its work. It was established during Cleveland's administration, and has turned out most of the armaments of the new cruisers and gun-boats. The Marine Barracks, near the Navy Yard, are the headquarters of the Marine Corps, famous for valiant deeds in Tripoli and Mexico, Corea, and the Pacific Islands, and elsewhere. The U.-S. Arsenal occupies 45 acres at the southern point of the city, between the Potomac and Anacostia rivers, with pleasant grounds, barracks, magazines, military stores, and cannon captured from the enemies of the Republic. The Arsenal dates from 1803, and was the depot of ordnance supplies for the Army of the Potomac. The Soldiers' Home was founded in 1851, with the tribute-money levied on the city of Mexico by Gen. Scott, and is maintained by a monthly tax of twelve cents on each soldier of the regular army, for whose use it is reserved. It has several handsome marble buildings, in a park of 500 acres, three miles north of the Capitol, and supports 500 disabled veterans. The grounds contain Launt Thompson's bronze statue of General Scott. This locality was the favorite summer-home of Presidents Pierce, Buchanan and Lincoln.

The Congressional Cemetery, near the Anacostia, contains the graves of many distinguished statesmen and officers. There is a National Cemetery, near the ancient Rock-Creek Church and the Soldiers' Home, with over 6,000 graves. In Oak-Hill Cemetery is the grave of John Howard Payne, the author of *Home, Sweet Home*, with its beautiful classic monument and portrait-bust. Here also are the graves of General Reno, Secretary Stanton and other notables.

The Washington Monument, designed by Robert Mills, and built in the periods 1848–54 and 1880–4 (at a cost of $1,200,000), is a majestic white obelisk 555 feet high, above the ground, and 592 feet above the foundations, the loftiest piece of masonry in the world, surpassing even the Great Pyramid, Cologne and Antwerp Cathedrals, and St. Peter's. The pyramidal crest is crowned by a pointed block of shining alumnium. The monument stands in a park of 45 acres, near the shore of the Potomac River, and on the Mall leading from the Capitol; and the eight windows near the top command beautiful views of the city, the winding and silvery Potomac, and the distant Blue Ridge. The outside is of crystal Maryland marble; and the base is 55 feet square, with walls 15 feet thick. The

WASHINGTON: SOME PUBLIC ART WORK.

interior is lighted by electricity, and traversed by a stairway of 800 steps, and an elevator which rises to the top in seven minutes.

The Lafayette Monument was executed by Falguière and Mercié, eminent Parisian sculptors, in 1888-90, and shows a colossal bronze Lafayette, in a Continental uniform, and around the marble base bronze statues of Rochambeau and Duportail, De Grasse and D'Estaing, soldiers of the French army and fleet which aided in freeing this Republic. There is also a symbolic statue of America. The Naval Monument, or Monument of Peace, at the foot of Capitol Hill, was made in Rome, of Carrara marble, and mainly paid for by subscriptions from the Navy. It is a group of beautiful emblematic statues, designed by Franklin Simmons, and erected in 1877. East of the Capitol is the bronze group representing Emancipation, with Abraham Lincoln holding the Proclamation over a negro whose shackles are broken. It was designed by Thomas Ball, and the freed colored people paid for the entire work. Another statue of Lincoln stands in front of the District Court House.

GARFIELD MONUMENT.

The equestrian statue of General Jackson, on Lafayette Square, was made by Clark Mills, from brass cannon captured by the hero of New Orleans, and received its dedication in 1853, with an oration by Douglas. The colossal equestrian statue of Lieut.-General Scott was made by H. K. Brown, from cannon taken by its subject in the Mexican War. Another equestrian statue, on Washington Circle, represents General Washington at the Battle of Princeton. Capitol Hill has an equestrian statue of General Nathaniel Greene, of the Continental army, dedicated in 1877. The Society of the Army of the Tennessee erected in 1876 Rebisso's colossal equestrian statue of General McPherson, made from the bronze of war-worn cannon. The noble equestrian statue of General Geo. H. Thomas (by J. Q. A. Ward) was erected in 1879 by the Society of the Army of the Cumberland. East of the Capitol is Greenough's colossal Carrara-marble statue of Washington, received in 1840; and on the west stands Story's bronze statue of Chief-Justice John Marshall, unveiled in 1884. Among the other statues in Washington are those of Admiral Dupont (by Launt Thompson), a bronze figure of heroic proportions, unveiled in 1884; Vinnie Ream Hoxie's bronze figure of Admiral Farragut, made from the metal of the propeller of his famous flagship *Hartford*, and unveiled in 1881; Plassman's marble statue of Benjamin Franklin; Bailey's bronze figure of Gen. Rawlins, Grant's chief of staff; Story's bronze statue of Prof. Henry, near the Smithsonian Institution; the colossal bronze statue of Martin Luther, erected by the Lutherans of America; and President Garfield's statue, on Maryland Avenue. Franklin's statue was a gift of Stilson Hutchins.

NATIONAL MUSEUM.

The environs of Washington are full of interest, and afford a variety of pleasant excursions. Steamboats run down the Potomac, daily, to Mount Vernon, the home and burial-place of George Washington, giving opportunity for a pilgrimage which should be taken by every patriotic American. The quaint old Virginian city of Alexandria, connected by ferry-steamers with Washington, preserves the church in which the Father of his Country used to worship, after the manner of the Epis-

MEDICAL LIBRARY AND MUSEUM, U.-S. ARMY.

copalians. Across the river from Washington, the yellow front of the Arlington mansion gleams out from the dark trees of Arlington Heights. This house was built in 1802 by G. W. P. Custis, Mrs. Washington's grandson, and George Washington's adopted son, whose daughter married Robert E. Lee. Here Lee dwelt until he threw in his lot with the Southern States. The deserted estate became a place of National camps and forts, and now belongs to the Government, and has been occupied as a National Cemetery, where over 16,000 soldiers of the Federal armies during the late civil war remain in "The bivouac of the dead."

CORCORAN ART GALLERY.

Remnants of old fortifications may be found on these memorable Virginian hills; and the roads leading thence to Falls Church and Annandale, Fairfax and Manassas, recall the marches of McDowell and McClellan, Hooker and Burnside, Meade and Grant. In 1861 Washington was practically only a second-rate Maryland town, with streets of abysmal mud, littered here and there by half-finished public buildings. It lay between two great slave States, perplexed Maryland and embattled Virginia, and the army considered it as not worth saving, for itself, but very much worth saving on account of what it represented, to wit, the throne of American Government, and the metropolis of free institutions and Republican ideas in the world.

BRONZE DOOR OF THE SENATE.

In those dark days, even the Royal Foundry at Munich refused to make the bronze doors for the U.-S. Senate, unless the cost was prepaid. This demand was met by a spirited order from Washington to ship the model of the doors to America; and at Chicopee (Mass.), the metal-founding was admirably done, showing, in imperishable bronze, the heroic deeds of George Washington.

Washington is now one of the most desirable residence-cities in the world, with a blameless civic administration, a bland climate, beautiful scenery and architecture, and noble historic associations. The chief foreign diplomats have their residences here, and many other foreigners. The leading American statesmen, authors, scientific men and society people are found on Pennsylvania Avenue, at some time during the year; and the number of distinguished people who become permanent residents of the Federal City grows larger every decade.

The quaint old building on the corner of Fifteenth Street and Pennsylvania Avenue, formerly the Washington Branch of the Bank of the United States, has been occupied since 1845 by a private banking firm of high reputation and credit. Nearly a century ago, when the neighboring town of Georgetown was a commercial point of some importance, Elisha Riggs was a prosperous merchant in that place, having as his book-keeper the afterwards-famous George Peabody. George Washington Riggs, eldest son of Elisha Riggs, formed a co-partnership in 1840 with W. W. Corcoran, of Georgetown; and the firm (Corcoran & Riggs) rapidly obtained an important position in the financial world, and successfully negotiated the Mexican War Loans for the Government. Mr. Corcoran retired from active business in 1854, since which date the firm has used its present title, Riggs & Co. George W. Riggs died as head of the house in 1881; and the present partners are Elisha Francis Riggs (son of George

WASHINGTON: RIGGS & CO.'S BANK.

W. Riggs), Charles C. Glover, Thomas Hyde and James M. Johnston. This old and renowned house conducts a very large business and retains its conservative reputation at home and abroad.

WASHINGTON: THE ARLINGTON HOTEL.

The Arlington Hotel was opened in 1869, on the sites of the homes of Marcy and Cass, secretaries of State under Pierce and Buchanan, and of Reverdy Johnson and Charles Sumner. Among its guests have been Presidents Grant and Arthur, Cleveland and Harrison, the Emperor Dom Pedro of Brazil, the Grand Duke Alexis, Prince Napoleon, the Duke of Orleans, the Count of Paris, King Kalakaua and Queen Kapiolani, President Diaz of Mexico, President Barrios of Guatemala, General Boulanger, Patti, Adelaide Neilson and hundreds of other notables, and embassies from many foreign powers. The hotel, with its new extension, stretches from Lafayette Square (on which the White House fronts) to McPherson Square, and is in every respect sumptuous. The beautiful and spacious parlors, in Louis Quartorze and other delicate styles of decoration, have been the scene of many famous receptions. Of the hotels at Washington, the Arlington is not only the largest of those strictly first-class, but it is foremost in all its appointments and management. Ever since 1870 its proprietor has been T. A. Roessle.

BALTIMORE SUN BUILDING.

Washington has four daily newspapers, thirty-four weeklies, eighteen monthlies and two quarterlies. Here, too, are the all-important Washington offices for correspondents of all the great newspapers of the world; some occupying commodious quarters, and in one case, *The Baltimore Sun*, having a home in its own elegant and conspicuous eight-story stone-front building.

The foremost chronicler and helper of the growth of modern Washington has been *The Evening Star* newspaper, which has the greatest local circulation of any American journal, in proportion to the population of the city in which it is published. This remarkable supremacy is due to the fact that the key-note struck by its first issues, away back in 1852, has always been followed, in the presentation of a clean, enterprising and bright independent paper, especially devoted to the interests of Washington and the District of Columbia, with all the latest local news and American and foreign reports, by Associated and United Press as well as special dispatches. The daily circulation of *The Star* exceeds 32,000 copies, most of which reach the households of the city, a fact which illustrates, more forcibly than any words that could be used, the popular esteem in which the paper is held. For nearly a quarter of a century the management of *The Star* has been in its present hands,—Crosby S. Noyes ably editing it, and S. H. Kauffmann, as president of the company, conducting its general business affairs. The Star Buildings cover a large area on one of the most prominent and valuable corners in the city, and contain an equipment in every department not excelled by that of any afternoon newspaper in the world.

WASHINGTON: THE EVENING STAR BUILDING.

HISTORY.

Florida was the first region of North America to be colonized by Europeans. It was discovered and explored in 1513, by Juan Ponce de Leon, landing at a bay just north of St. Augustine, and proclaiming the sovereignty of Spain. Fourteen years later Panfilo de Narvaez marched inland from Apalachee Bay, with 300 Spaniards, in a futile and fatal attempt to conquer and colonize the country. All these adventurers perished, except Cabeza de Vaca and three others, who discovered and crossed the Mississippi, and reached the Spanish towns of Mexico. The Adelantado Hernando de Soto landed near Tampa, in 1539, with a noble array of armor-clad knights and men-at-arms, and marched across West Florida, and away among the pagan tribes beyond. In 1564 Laudonnière and his French Huguenots built Fort Caroline, on the St.-John's River, but were surprised by a Spanish fleet under Menendez, and massacred, "Not as Frenchmen, but as Lutherans," as the inscription left on their bodies grimly attested. In 1568, De Gourgues's expedition captured the fort on the St. John's, and hung the garrison, "Not as Spaniards, but as traitors, thieves and murderers."

St. Augustine was founded and named by the pitiless Menendez, in 1565. Twenty-one years later Sir Francis Drake utterly destroyed the town; and in 1665 the buccaneers plundered it. Gov. Moore led a South-Carolinian army against St. Augustine in 1702, and was beaten off from the fort. Oglethorpe vainly besieged the place for 38 days, in 1740, with 1,400 Georgians and Carolinians, and rained shot and shell upon it from Anastasia Island.

The settlement of West Florida began in 1696, when the Spaniards occupied Pensacola. Florida was ceded to Great Britain in 1763, in return for Cuba, and received English colonies, and many Tories from the Carolinas, nearly all of whom removed to Georgia

STATISTICS.

Settled at	St. Augustine.
Settled in	1565
Founded by	Spaniards.
Admitted to the United States,	1845
Population in 1860,	140,424
In 1870,	187,748
In 1880,	269,493
White,	142,605
Colored,	126,888
American-born,	259,584
Foreign-born,	9,909
Males,	136,444
Females,	133,049
In 1890 (U. S. Census),	391,422
Population to the square mile,	5
Voting Population (1880),	61,679
Vote for Harrison (1888),	26,657
Vote for Cleveland (1888),	39,561
Net State Debt (1890),	$153,391
Assessed Property,	$77,000,000
Area (square miles),	58,680
U. S. Representatives (1893)	2
Militia (Disciplined),	1,300
Counties,	45
Post-offices,	894
Railroads (miles),	2,471
Manufactures (yearly),	$5,500,000
Farm Land (in acres),	3,300,000
Farm-Land Values,	$20,000,000
Colleges and Professional Schools,	
School Buildings,	1,800
Average School-Attendance,	51,000
Newspapers,	122
Latitude,	24°30′ to 31° N.
Longitude,	79°48′ to 87°38′ W.
Mean Temperature (St. Augustine),	69½°
Mean Temperature (Key West),	76½°

TEN CHIEF PLACES AND THEIR POPULATIONS. (Census of 1890.)

Key West,	18,080
Jacksonville,	17,201
Pensacola,	11,750
Tampa,	5,532
St. Augustine,	4,742
Palatka,	3,039
Tallahassee,	2,934
Ocala,	2,904
Orlando,	2,856
Fernandina,	2,803

SILVER SPRING.

when Don Bernardo de Galvez captured West Florida. The country was ceded back to Spain (in 1783) in exchange for the Bahamas. The Apalachicola River became the boundary between the provinces of East and West Florida. The people of the Gulf States were ill-pleased at the continuance of a European power in Florida, and Gen. Jackson seized Pensacola, in 1814, and four years later occupied both Pensacola and St. Augustine. On both occasions the Government recalled its too enthusiastic officers, and the Spanish system was restored. In 1819 the King of Spain reluctantly ceded Florida to the United States, and Andrew Jackson became its Governor. There were then but 600 whites in Florida, dwelling mainly in Pensacola and St. Augustine, the rest of the country being occupied by the Seminoles, numbering about 4,000, with 800 slaves. The aboriginal Floridians were the Miccosukee Indians. After 1750, migrating bands of Creeks from Alabama occupied Alachua and Tallahassee, and swallowed up the original tribes. In 1835 began the Seminole War, which lasted for seven years, and cost $20,000,000 and the lives of 1,500 American soldiers. Over 30,000 volunteers were called out by the United-States Government, including commands even from New York and Missouri. Every settlement south of St. Augustine was blotted out. In 1835 the Indians massacred Maj. Dade and his command of 109 men, and were beaten by Gen. Clinch. In 1837 Zachary Taylor and 1,100 troops defeated 380 Indians in a hard battle at Lake Okeechobee, losing 138 men. The savages, under the great chief Osceola, were driven southward, to Suwanee, to Orange Lake, and across the Everglades, until the navy joined in the closing campaigns among the Florida Keys. Most of the Seminoles were removed beyond the Mississippi in 1842 and 1858, and now dwell in the Indian Territory; but 300 of them cling to their old homes among the Everglades, with their chief village at Tallafajassa, 15 miles from Fort Pierce, on Indian River.

At the outbreak of the late civil war, Florida promptly joined the Southern States in attempting to leave the Union, seizing all the unprotected National property within her borders. The strong defences of Fort Pickens, near Pensacola, and Forts Jefferson and Taylor, on the Keys, were securely held by their Federal garrisons; and the vessels of the United-States navy kept command of most of the coast. Early in 1864 Gen. Seymour occupied Jacksonville with 7,000 Federal troops, and advanced westward nearly to Lake City. At Ocean Pond, on the Olustee, his army was thrown in detail against a strongly posted Confederate force, and defeated, losing 1,801 men out of 5,500 engaged. Out of an equal force, the Southern army lost 940. After this appalling carnage the National troops retreated to Jacksonville, which remained secure under the Federal control.

FLORIDA FRUITS.

The terrible yellow-fever pestilence of 1888 was the result of the carelessness of the local government, which allowed the disease to spread out from Tampa. It held high carnival at Jacksonville, with 4,711 cases, of whom 412 died; and also at Fernandina, Gainesville and other places. A State Board of Health was created in 1889, and will be able to act with intelligence and authority in future emergencies, so that it will be difficult for epidemics to make such ravages again.

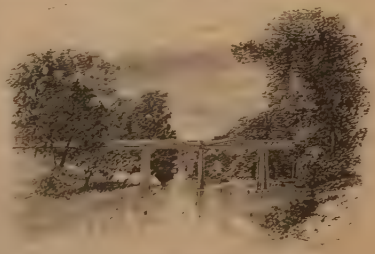
TAMPA BAY.

The Name of the State was given by its discoverer, Ponce de Leon, who first saw the land on Easter Sunday, or, as the Spaniards have it, *Pascua Florida*, "The Flowery Festival." The name therefore means "The Flowery," or "The Land of Flowers." Florida is called THE EVERGLADE STATE, from one of its natural features. The people used to be nicknamed "Fly-up-the-Creeks."

The Arms of Florida show an Indian upon a bank, scattering flowers; the sun sinking or rising behind distant hills; a river in the middle ground, bearing a side-wheel steamboat; and a great cocoanut tree. The motto is: IN GOD WE TRUST.

The Governors of Florida have been: *Territorial:* Andrew Jackson, 1821–2; Wm. P. Duval, 1822–34; John H. Eaton, 1834–6; Richard K. Call, 1836–9 and 1841–4; Robert R. Reid, 1839–41; John Branch, 1844–5. *State:* Wm. D. Moseley, 1845–9; Thomas Brown, 1849–53; James E. Broome, 1853–57; Madison S. Perry, 1857–61; John Milton, 1861–5; A. K. Allison (acting), 1865; Wm. Marvin (provisional), 1865–6; David S. Walker, Sr., 1866–9; Harrison Reed, 1869–73; Ossian B. Hart, 1873–4; Marcellus L. Stearns, 1874–7; George F. Drew, 1877–81; Wm. D. Bloxham, 1881–5; Edward A. Perry, 1885–9; and Francis P. Fleming, 1889–93.

Geography.—East Florida includes the peninsula, westward to the Suwanee River; Middle Florida extends from the Suwanee to the Apalachicola; and West Florida reaches thence to the Perdido River. Another division is North Florida, from 30° to the northern line, 45 miles wide; Central (or semi-tropical) Florida, a land of savannas and hammocks, lakes and rivers; and South (or sub-tropical) Florida, where there is very slight difference in the temperature, summer and winter. The distance from the northern line to the remotest Key is 450 miles, and the average width of the peninsula is 95 miles. The distance from the Atlantic to the western line is 400 miles. It is 700 miles from the Perdido River to Cape Sable. Imaginative geographers find in Florida the shape of an inverted boot, with the heel on the St. Mary's River and the toe at Pensacola.



SUWANEE RIVER.

The central highlands contain many pleasant modern villages, in a rolling country covered with a majestic growth of pines, and diversified by hundreds of crystalline lakes. Among the famous resorts in this region are Altamonte Springs, on Lake Orienta; the Seminole Hotel, among the orange-groves of Winter Park; Ocala, and Lake Weir. The mineral waters of the Ponce-de-Leon, Green-Cove, White Sulphur, Suwannee, Newport and other springs have attracted much attention, and are visited by many health-seekers.

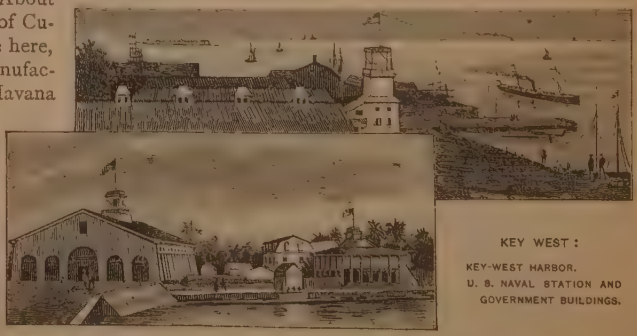
The 1,200 miles of Florida's coast (472 miles on the Atlantic, the rest on the Gulf) includes among its chief harbors Fernandina, Jacksonville, St. Augustine, Daytona, and Port Orange, on the Atlantic; and Key West, Oyster Bay, Punta Rassa, Charlotte Harbor, Tampa, Cedar Keys, Carabelle, St. Mark's, Apalachicola and Pensacola on the Gulf. The Atlantic coast is fronted with narrow sandy islands, enclosing far-reaching lagoons. The broad Straits of Florida sweep around between

ROCKLEDGE: SCENE ON INDIAN RIVER.

the peninsula and Cuba and the Bahama Banks, with the deep-blue Gulf Stream filling them from shore to shore, 30 miles wide, 2,000 feet deep, and rushing eastward and northward at a rate of five miles an hour, at a temperature of 84°.

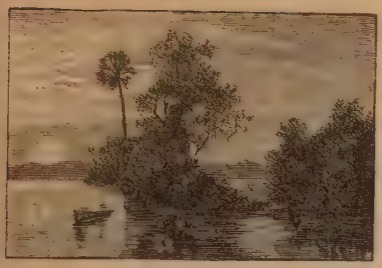
There are myriads of islands around Florida, including those in the Everglades, the Ten Thousand Islands, and the famous Florida Keys (Cayes), extending 200 miles south-westward from Cape Florida to the Dry Tortugas. Many of the Keys are uninhabited; and nearly all of them are infested by enormous swarms of mosquitoes. A navigable channel separates the sand-flats upon which the Keys rise from the long and dangerous chain of the Florida Reefs. The Keys are only a few feet above the tide; and bear mangrove, mastic, sweet bay, gumbo-limbo, palmetto, pine, and other trees, among their sands and rocks. Cocoanuts, hemp, and pineapples grow here with little attention. Largo is the greatest of the islands, and encloses broad bays and lagoons. Here, and at Elliott's and the Matecumbe and Plantation Keys, 600 truck-farmers raise tomatoes, cucumbers, bananas and other fruits for the early market, sending 50,000 crates by the Mallory Line to New York every season. Since 1880, 600,000 cocoanut-trees have been planted on and near the Keys, with wonderful success, and their product is shipped north in increasing volume. They require salt air, and will not endure frosts. One hundred trees grow on an acre, bearing fruit in from seven to ten years. During the season of pineapples, several thousand barrels are shipped from Key West every week. They are of the red Spanish variety, growing on dry sandy soil, 10,000 plants to the acre, and bearing the second year. The enormous development of the cocoanut and pineapple culture along the coast and up as far as the Caloosahatchee and Lake Worth, and the rapid advance in raising dates, guavas and lemons in South Florida have been almost entirely the result of the past ten years, and will enrich the Republic by a variety of new and delicious food-supplies.

Key West, 60 miles from the main, and 90 miles from Havana, is the sailors' pronunciation of the Spanish *Cayo Hueso* (Bone Reef), so named because the early explorers found here great quantities of human bones. It was settled in 1818 by Connecticut fishermen, who sold their fish in Havana. About 20 years ago a number of Cuban exiles took refuge here, and established the manufacture of cigars, from Havana leaf. There are now 125 factories, making over 125,000,000 cigars yearly. Key West has a noble and well-fortified harbor, with a naval station, and lines of steamships to Cedar Keys, Tampa, Havana, New Orleans, Galveston and New York. It is the ninth port of entry in the United States; and the only Gulf-coast city never occupied by the Confederacy. The island is six miles by a mile and a half in area. The city has broad streets, ten churches and a fire-proof Masonic Temple; many structures of limestone quarried on the island; fine public buildings, and several lines of street-cars. It is peculiarly a Spanish colony, with foreign architecture. The climate is so equable, tropical and withal bracing, that this locality has become a sanitarium for sufferers from diseases of the throat and lungs, and catarrhal patients. Snow-flakes have never been seen here. Key West is 66½ hours from New York, by fast mail, and less than twelve hours from Havana, by the steamship route. The southernmost point of the United States is Sand Key, seven miles south-southwest of Key West, on the edge of



KEY WEST:

KEY-WEST HARBOR.
U. S. NAVAL STATION AND GOVERNMENT BUILDINGS.


HOMOSASSA RIVER.

the Florida Reefs. Here a tall brown and white light-house beacons the Florida Straits, within 80 miles of Havana.

The fisheries of Florida are the largest in the South, and engage 10,000 men, with a yearly product of $1,000,000. The sponge-fishery is one of the leading industries, and employs 1,000 fishermen and 400 vessels and sail-boats, built on the Keys, and manned by Bahama negroes ("Nassau coons"). A sponging vessel has several boats, each sculled slowly by one man, while the other, perched in the bow, watches the bottom of the channel for sponges, and secures them by a three-pronged iron claw fastened to a long pole. Key West alone ships nearly $400,000 worth of sponges every year, mainly to Paris. The mullet-fisheries of West Florida were famous in the old Spanish days, and now 5,000,000 pounds a year are exported to Cuba. The grouper fisheries are also very important and lucrative. The red snapper is a handsome, favorite and appetizing fish, and 2,500,000 pounds are sent from Pensacola yearly, largely to New York. The pompano is another valued denizen of these waters; and here also are found the king-fish, sheepshead, bream, Spanish mackerel, channel-bass, blue-fish, sea-trout, and oysters. Shad run in the rivers; and outside are found sharks, cuttle-fish and octopuses. The green-turtle and sea-turtle (sometimes weighing 1,200 pounds each) captured in nets among the Keys are of great value, and their eggs (100 to 300 in each nest) are prized as food. Alligators dwell in all the rivers, and are shot by thousands; and on the lower coast are found the manatee and crocodiles. Many Bahama corallers get an arduous living by breaking from the submerged Keys, tree, finger, brain, red and other varieties of corals, which are sent North and sold for good prices. Tarpon fishing is one of the most exciting of sports.

Much of the Atlantic coast is fringed with long and narrow islands, like Amelia, on which Fernandina stands, and Anastasia, opposite St. Augustine. Fort-George Island, at the mouth of the St.-John's, is a beautiful sea-fronting winter-resort. Indian River, a salt-water lagoon 165 miles long, and from one to six miles wide, and separated from the sea by a narrow strip of land, is famous for its delicious oranges and pineapples. The southerly part, from St. Lucie to Jupiter Inlet, is called Jupiter Narrows, or St.-Lucie Sound.

Florida has 1,200 miles of river navigation, on twenty streams. The St.-John's River is nearly 400 miles long, flowing northward parallel with the ocean coast, from its birthplace in the swamps just north of the Everglades, through a chain of silvery lakes, reaching a width of a mile 50 leagues above its mouth, and in its lower courses broadening to six miles across. The river is divided into three sections (1), the Port of St. John's, 22 miles long, from the jetties at the mouth up to Jacksonville, the avenue of a large steamship commerce; (2) the St.-John's River, 125 miles long, from Jacksonville to Sanford (on Lake Monroe), with several steamboat lines; and (3), the Upper St.-John's, extending 150 miles, from Sanford to Lake Florence, and navigated by smaller vessels, which thread the dark bayous far into the remote and unpeopled south. Its tributaries, the Ocklawaha and Kissimmee, are also the avenues of a considerable trade. The recent drainage-works have opened a steamboat route 140 miles long, on the historic Caloosahatchee River, Lake Okeechoobee, and the Kissimmee, Cypress and Tohopekaliga Lakes, into inland Florida. The Peace, Manatee, Withlacoochee, St. Mark's,

ON THE OCKLAWAHA.

Apalachicola and other rivers are being improved by United-States Engineers. The Suwanee has been made navigable to Ellaville, 124 miles.

LAKE CITY: STATE AGRICULTURAL COLLEGE.

Lake Okeechobee covers 1,000 square miles, and is from 16 to 22 feet above the sea. In rainy times it overspreads vast areas of the Everglades, and floods entire townships. The Everglades is a vast and luxuriant swamp of 7,500 square miles, during the rainy season (from July to October) covered with from one to ten feet of pure and clear water, abounding in fish, and studded with islands, some of them containing hundreds of acres of cypresses and pines, palmettoes and magnolias. The United States patented to Florida nearly 20,000,000 acres of land, of which the State had on her hands, in 1881, 12,758,000 acres unsold, but encumbered by a lien (the Vose Judgment) of nearly $1,000,000, largely on account of railroad construction. In 1881, Hamilton Disston and others of Philadelphia paid $1,000,000 for 4,000,000 acres, and formed the Florida Land and Improvement Company, which has since acquired vast additional tracts, besides selling 2,000,000 acres to Sir Edward Reed and other British capitalists. This enterprising company also offered to drain the Everglades and lower its lakes, if half the redeemed territory (in alternate sections) should be granted them. The new drainage area extends 85 miles from Lake Tohopekaliga to Lake Okeechobee, and thence a broad canal leads westward to the Caloosahatchee River. Okeechobee has fallen two feet, and 4,000 miles of rich lands have been reclaimed for the cultivation of sugar and fruit, for which the climate seems peculiarly adapted.

A FLORIDA BICYCLE.

The State contains 1,200 clear lakes, which agreeably diversify its otherwise monotonous scenery. Many of them cover more than 50 square miles each, like Chipola and Miccosukee, Apopka and Kissimmee, George and Tohopekaliga.

The Climate varies, from that of North Florida, with a temperature ranging from 98° to 19°, to that of the central counties, 100° to 25°, and of South Florida, 96° to 30°, while the temperature of the latter shows marked inequalities, Key West being several degrees cooler than Punta Rassa, a long way to the northward. The prolonged heats of South Florida are perilous to unacclimated persons, and especially to those with a tendency to malarial and typhoid fevers, who should keep north of 29° from March until November. Febrile and bilious patients should avoid Florida. The winters are distinguished by frequent rains, especially on the Gulf side, and by occasional light frosts in North and Central Florida, sometimes resulting disastrously for the orange groves. The climate is in the main remarkably equable and healthy, except near the wet lands of the south. It has been said that the Florida year is made up of eight months of summer and four months of warm weather. The summer temperature is more even than that of the North. The cool and salty sea-breezes blow clear across the peninsula during the day, and at night the returning Gulf winds blow from the westward. North of 29° the climate resembles that of Algiers, Sicily, Greece, Cyprus, Syria and Armenia. The winters are like the Indian summers

AMONG THE PINES.

of the North. Mrs. Stowe pronounced the St.-John's country "a child's Eden." The winter climate is singularly dry and healthful, and resembles that of Southern California, without its dust. It is warmer on the Atlantic coast than along the Gulf, owing to the Gulf Stream, which hugs the shore from Biscayne Bay to Jupiter Inlet. The climates of Florida cannot be described in a paragraph, for they show wide differences, even between points so near as Jacksonville and Palatka, and still more between the Tallahassee country and the sub-tropical South. Among the ailments benefited by a season in Florida are consumption, phthisis, brain-exhaustion, dyspepsia, nervous prostration, rheumatism, and throat and bronchial troubles. The health-seeker must be careful not to return too early in the season to the cold Northland.

ORANGE CULTURE.

PACKING AND SHIPPING IN THE INDIAN RIVER DISTRICT.

Florida is divided into three sections, as to its soil: (1) the oak, hickory and pine uplands in the northwest, covering 2,300 square miles of fairly good red-loam, brown-loam, and pine-ridge lands, with noble trees and small crops; (2) the long-leaf-pine lands of north and central Florida, the high rolling region of dark sandy loam (with its groups of beautiful lakes, high-arched forests, and rising villages), the water-soaked flat pine-lands toward the coasts, and the verdant and fertile hammocks or swamp-surrounded knolls, crowned with oranges, live-oaks, palmettoes and cypresses; and (3) the pitch-pine and alluvial lands of the south, where prairies and savannas alternate with flat woods and swamps, a rich soil, adapted to coffee, rice, sugar-cane, guavas, pineapples and bananas. The best pine-lands have a dark vegetable mould, on deep chocolate-colored sandy and limy loam, apparently inexhaustible. The second-rate pine-lands are high and rolling, healthy and well-watered, heavily timbered, and with good natural pasturage. About 25,000,000 acres are covered with woods, nearly three fourths of which is the valuable pitch-pine, the rest including pine, oak, sweet-gum, royal palm, bay-laurel, magnolia, cedar, beech, mahogany, satin-wood, lignum-vitæ, green ebony, mangrove, cork-tree and olive—in all 200 species of trees. Many large saw-mills in West Florida are devoted to getting out the pitch (or Georgia) pine lumber. Live-oak, for ship-building, is a large product of the northeast; and western Florida finds profit in tar, rosin, and pitch, and distilling turpentine. Lumbering is the foremost industry of the State, and yields $20,000,000 a year. The immense levels of Florida are broken only in the northwest, by a few hills of 300 feet in height. On the whole peninsula there is no eminence equalling 100 feet. The land on these vast levels is exceedingly rich, for the most part, the chief difficulty being in clearing it.

JACKSONVILLE: FLORIDA SUB-TROPICAL EXPOSITION.

The Farm-Products of the State include yearly 4,500,000 bushels of corn, 600,000 bushels of oats, 1,300,000 pounds of rice, 1,000,000 gallons of molasses, 1,500 hogsheads of sugar, with tea and coffee, flax and hemp, barley and hops, peas and beans. It bears but little wheat or hay.

The cotton crop is 60,000 bales, valued at $4,000,000, and including much Sea-Island cotton. The northeastern counties send shiploads of early vegetables and berries to the Northern cities. The tobacco industry, after many years of neglect, is now assuming great proportions, especially in the rich Suwannee-River country, and broad areas have been planted with the best of Cuba and Sumatra seed. The yearly product now reaches nearly $700,000, and increases every season. There are 50 varieties of oranges cultivated here, the Florida fruit holding the preëminent rank over all the oranges of the world. Fully 10,000 square miles are adapted to this delicious fruit, and 100,000 acres are in orange-groves; and already the yearly crop reaches 2,250,000 boxes (150 in a box). About $10,000,000 is invested in the orange-groves, and the yearly product is valued at nearly $2,000,000. The St.-John's and Halifax-River regions are perfectly adapted to this fine fruit. The oranges grow on graceful straight gray-barked trees, from 15 to 30 feet high, with large shining leaves and delicate white and fragrant blossoms. The line of migration of the orange has been from southeastern Asia to Syria and Spain; and the cavaliers of the latter country brought it to Florida. It is raised largely in 21 counties, the main product coming from Lake, Marion, Putnam, Orange and Volusia.

KEY WEST: MARINE HOSPITAL.

The choicest fruit is the juicy and thin-skinned variety growing along the richly fertile shores of the Indian River, under the intimate warmth of the Gulf Stream. The grape-fruit grows more easily than the orange, and hangs in clusters (whence its name). The shaddock is a larger and coarser fruit, weighing from three to five pounds, and shaped like a pumpkin. It is not much eaten. Besides the cocoanuts and pineapples of the Keys, Florida produces lemons and limes, grapes and dates, guavas and citrons, tamarinds and pomegranates, figs and olives, pears and apples, peaches and quinces. Both yellow and red bananas are grown, 1,000 plants to the acre, in rich moist soil.

GAINESVILLE: EAST FLORIDA SEMINARY.

The Geology of peninsular Florida tells that it is founded on coral reefs, upon which Vicksburg limestone was deposited, followed by sand, pebbles and clay. The formations are so recent that they contain few valuable minerals, except the shell-limestone (coquina) of St. Augustine, and the Tampa and Manatee marls. Ocala has large lime-kilns. Brown lignite occurs on the Suwanee and Blackwater. The limestone strata are full of caverns, through some of which flow crystal streams, occasionally breaking out on the surface of the ground in great "boiling springs." Elsewhere occur the conical hollows called "sinks," sometimes covering many acres, with running water visible at the bottom. The Wakulla Spring is 400 feet wide, crystalline and ice-cold, and forming a navigable river. Silver Spring is 600 feet across, and its efflux is a navigable stream 150 feet wide. Blue Spring pours a flood of clear blue-tinted water into the Withlacoochee, from a bowl 70 feet across and 40 feet deep. The Green-Cove, and other springs are of similar form and proportions.

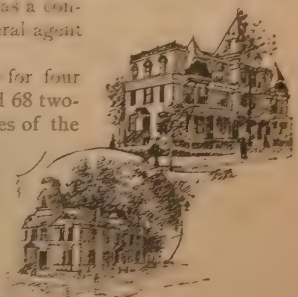
Florida phosphate rock was discovered in small quantities at various points about the year 1885, and in 1889 Dunn, Voight and Snowden found the great

DUNNELLON: DUNNELLON CO.'S PHOSPHATE BEDS.

DUNNELLON: DUNNELLON CO.'S PHOSPHATE BEDS.

and invaluable deposits at Dunnellon. The importance of these finds was instantly seen, and vast sums have been invested in their development. The two chief fields are along the Gulf, for 60 miles; and in the Withlacoochee region, where this mineral deposit, so valuable for the sandy soil of Florida, is easily procured, in inexhaustible bars and beds. The Dunnellon mines are in the latter region, and have already sent out many tons of phosphatic material, mainly to Europe, where it is highly prized for fertilizing purposes. Florida phosphate rock is of a creamy tint, very soft when first dug, and containing from 5 to 40 per cent. of phosphate impregnating the limestone or sandstone. The Dunnellon rock has shown in analysis 80 per cent. of phosphate of lime, on dry basis, and the fertilizers made from it do not revert, but show a high percentage of soluble after being kept some time. The Bradley Fertilizer Company, of Boston, has a controlling interest in the Dunnellon property, and is the general agent for its sale.

Government.—The governor is elected by the people for four years. The Legislature contains 32 four-years' senators and 68 two-years' representatives. The judiciary includes three justices of the Supreme Court; the seven circuit courts; the county courts and justices; and local criminal courts. Since 1880 the State finances have been redeemed; railways have been extended, and many new towns founded; and the orange-culture and the fisheries have been developed amazingly. The State Capitol, at Tallahassee, is a massive and roomy structure, built by the Territorial Government in 1834.



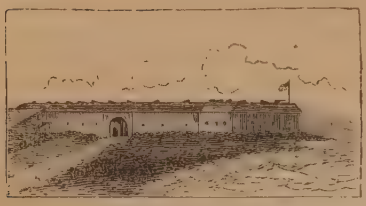
DE LAND: JOHN B. STETSON UNIVERSITY.

The militia of Florida is composed of the Florida State Troops, enrolled in three battalions, of ten infantry and two artillery companies and 500 men. They have annual encampments, that for 1887 having been at Pablo Beach, and that for 1888 near Pensacola. There are also 15 detached volunteer companies of infantry (seven of them colored), reporting to the Adjutant-General of Florida. The territorial militia numbers 48,000 men.

The State Penitentiary contains 360 convicts, more than three fourths being colored men, and most of their crimes having been against property. The prisoners are kept in a stockade near Monticello, and employed in farm-labor. The Florida Insane Asylum, in the old United-States arsenal at Chattahoochee, has 250 inmates, mostly whites. The Institution for Deaf, Dumb and Blind Youths is at St. Augustine.

Education.—Florida spends $500,000 a year (five times as much as in 1880) for its schools, whose efficiency is advancing continually. One fourth of the schools are for colored children, and one fourth of the teachers are negroes. The State normal colleges were founded in 1887. The one at De Funiak Springs is attended by 60 white students; the one at Tallahassee has 52 colored students. The Florida Chautauqua has beautiful grounds and many buildings, and gives a month of lectures and studies, readings and concerts. It is at De Funiak Springs, a deep and crystalline circular lakelet, without outlet or inlet, 270 feet above and 20 miles from the Gulf, and surrounded by fragrant forests of pitch-pine. The De Funiak waters and

KEY WEST: LIGHT-HOUSE.



PENSACOLA: FORT PICKENS.

climate have effected many cures, and are highly esteemed in Florida.

The Congregationalists founded Rollins College, at Winter Park, in 1885, and it now has four buildings, on the shore of Lake Virginia. John B. Stetson University begun as DeLand Academy in 1883, and became a Baptist school in 1887. It is named in honor of a well-known Philadelphia philanthropist, who has given it large sums of money. The University is at the pleasant town of De Land. The Methodist Episcopal Church South founded the Florida Conference College, at Leesburg, in 1886; the Methodist Episcopal Church founded the St.-John's Conference College, at Orange City, in 1887; the Christians founded Orange College, at Starke, in 1883.

The Legislature of 1851 ordered that "two seminaries of learning shall be established, one upon the east, the other upon the west, side of the Suwanee River." For many years these were the only public high-schools in Florida. The West-Florida Seminary is at Tallahassee; the Seminary East of the Suwanee River is at Gainesville. They are military and normal institutions, with about 120 students in both. Florida University was organized in 1883, with the West-Florida Seminary as its literary department, and the Tallahassee College of Medicine and Surgery, as a professional school; but it endured only for a short season. The State Agricultural College is at Lake City, and furnishes a free collegiate course in literature, farming and military science to 80 young Floridians. The Cookman Institute is a normal and Biblical school for colored people, with 170 pupils, maintained by the Methodist Episcopal Church, at Jacksonville. The Baptists have a similar school, at Live Oak; and the Congregationalists opened the Florida Normal and Industrial College, near Lake City, in 1886.

KEY WEST: FORT TAYLOR.

ST. AUGUSTINE: FORT MARION.

Florida has 275,000 church attendants. The Baptists lead the field, with 400 churches and 28,731 members. The Methodists have 19,000, the Catholics 11,000, the Presbyterians 2,500, and the Episcopalians 9,500.

The pioneer in Florida journalism was *The Floridian*, founded at Tallahassee in 1828, and still in existence. The State now has eleven daily newspapers and above 100 weeklies. There are two papers published at Key West in the Spanish language; the American paper being the daily *Equator-Democrat*.

National Works.—Fort Marion, at St. Augustine, is a grand gray polygon, with a dry moat 40 feet wide. It was built in 1737–66, by Mexican convicts, part of the works having been erected as early as 1565. The dark dungeons, gray barbican, dusky passages and sea-viewing ramparts are visited

ST. AUGUSTINE: MONUMENT TO DADE'S COMMAND.

by bevies of wondering tourists. There is no garrison. St.-Francis Barracks, also at St. Augustine, are occupied by United-States troops. Fort Clinch, near Fernandina, has been abandoned for some years. Fort Taylor, at Key West, is a casemented pentagonal brick structure, erected at a cost of $1,250,000, and mounting 200 guns. There are also martello-towers on the island. The garrison was withdrawn long ago. Fort Jefferson, on Garden Key, the largest of the Dry Tortugas, is an enormous and powerful fortification of brick, enclosing nine acres of lawns and palm-trees, oleanders and roses. It was begun in 1846, to be the military key of the Gulf, and is said to have cost $30,000,000, all its materials having been brought from New York. The officers' quarters and barracks are the best in America. During the Secession War this fortress became a National military prison. Since 1878 it has remained ungarrisoned, but a battalion has recently been ordered hither. Nearly three miles distant, across a fairy-land forest of submerged corals, rise the snow-white sands of Loggerhead Key. Fort Jefferson is 71 miles from Key West. The entrance to Pensacola is defended by Fort McRae and Fort Pickens, half a league apart, with Fort Barrancas two miles above and facing down the channel. The first two have been abandoned. They are nearly half a century old, and endured terrific bombardments during the Secession War. Pensacola has an antique Navy Yard, very little used of late years; and there is a Naval Station at Key West. At night the flashes from 36 light-houses sparkle along the Florida coast and Keys, and nearly 60 on the long St.-John's River.

ST. AUGUSTINE: THE ALCAZAR.

Chief Cities.—Jacksonville, 15 miles from the ocean, on a bend of the St.-John's River, is the metropolis of Florida, with large fruit-packing interests and grain trade, and some manufactures; and entertains nearly 80,000 guests every winter season. It has a large ocean-commerce, with wharves lining the river-front for miles. The broad avenues and suburban shell-roads are lined with live-oaks and fragrant flowers, and afford pleasant drives.

ST. AUGUSTINE: THE PONCE DE LEON.

St. Augustine, with its quaint Spanish lanes and balconied buildings, crumbling gates and castle, and noble magnolias, palms and oleanders, is the oldest city in the United States, and has the most costly and magnificent hotels in the world. Two of these, the Ponce de Leon and the Alcazar, cost $5,000,000, and are massively built of shell concrete, in semi-Saracenic Spanish-Renaissance architecture, with towers, casinos, and courtyards. The Hotel Cordova is a third magnificent Moresque structure. St. Augustine also possesses the most elaborate modern Pompeian villa in the world, designed by a British architect, with atrium, trichnia, exedra, bibliotheca and solarium. The new Presbyterian and Methodist churches are among the finest pieces of architecture in the South. On the Plaza de la Constitucion stands the old slave-market; and the Huguenot Cemetery, the graves of Maj. Dade's command, the old convents and churches, the many attractive and interesting drives, and the yachting in the adjacent waters, furnish a great variety of interest for visitors to the American Riviera.

ST. AUGUSTINE: THE PONCE DE LEON.

Tallahassee, the capital, is purely a Southern inland city, famous for its flowers and its delightful society, and old-time traditions, and near the old Spanish fort of San Luis. The city stands on a hill 250 feet high, and overlooks many leagues of pine-forests, amid which rises the mysterious smoke of Wakulla. Pensacola, another old Spanish colony, has a noble harbor of 200 square miles, with a large export trade in lumber and fish. Fernandina is a prosperous old sea-port, exporting lumber and naval stores, with one of the best landlocked harbors on the Atlantic coast, and a capital winter climate. A shell road leads out two miles to the firm and shining sands of Amelia Beach, twenty miles long, with hotels and cottages, and the best of surf-bathing. The Mallory line of steamships runs from Fernandina to New York. Palatka stands on a pleasant plateau, at the head of steamship navigation, 96 miles up the St.-John's, and in a rich orange country. It is an important supply-depot and headquarters for travellers. Tampa, a very ancient little city, of Spanish origin, near Tampa Bay, is attaining importance for its cigar-factories, and its commerce with the West Indies. The Tampa-Bay Hotel is one of the most magnificent pleasure resorts in the Union, among the orange and palm groves and live-oaks along the Hillsborough River. Cedar Keys is one of the chief steamship ports of the Gulf coast, with a large trade in sponges and oysters, fish and turtles.

ST. AUGUSTINE: CATHEDRAL AND SLAVE-MARKET.

The Railroads of Florida have developed their lines rapidly since the war, and have perfected their northern connections, so that Pullman vestibuled trains run from Jacksonville to New York in 30 hours, and to Cincinnati in 28 hours. The Florida Central & Peninsular Railroad runs southwest 156 miles, from Fernandina to Cedar Keys; west 232 miles, from Jacksonville to the Chattahoochee River (where it connects with the Louisvillle & Nashville line); and south from Waldo to Tampa, 159 miles; with branches to Tavares (for Sanford and Orlando) and St. Mark's. The Jacksonville, Tampa & Key-West Railroad ascends the St.-John's River to Enterprise, and ends at Titusville, the metropolis of the Indian-River country. The Orange-Belt line runs southwest 157 miles from Sanford to St. Petersburg, on Tampa Bay. The Florida Southern, South Florida, and other lines traverse long distances of the lower peninsula. The Plant system includes a large part of the Florida lines. The Atlantic Coast Line runs superb trains from Boston and New York through to Florida.

ST. AUGUSTINE: THEASURY STREET.

Steamboats run daily from Jacksonville to Sanford in 18 hours; and smaller steamers run thence to Lake Harney. Another line runs from Palatka to Welaka, on the St.-John's, and thence 200 miles up the Ocklawaha River. A favorite tourist-route lies along the beautiful semi-tropical lagoons of the eastern coast, from Ormond-on-the-Halifax, or from Daytona, along the sparkling green waters of the Halifax River, with sea-beaches and light-houses on one side, and pleasant embowered villages on the other. Below Mosquito Inlet, the steamboats enter Hillsborough Lagoon, and thence pass into Indian River by a canal at the Haulover. Here they visit the maritime Titusville and the beautiful pleasure-resort at Rockledge and Jupiter. The most southerly railroad in the United States runs from Jupiter to Lake Worth, whose little steamboats visit several villages, the luxurious winter-homes of rich Northern gentlemen.

ST. AUGUSTINE: OLD GATE.

HISTORY.

The aborigines of Georgia were the Cherokees, with 6,000 warriors, occupying the highlands, north of 34° (the line of Elberton, Athens and Marietta); and the various tribes of the Muscogee or Creek Confederation, numbering 15,000 persons in Georgia, south of 34°. In the year 1540 De Soto and his 600 Spaniards marched from the Ocklokonee to the Ocmulgee, and to Silver Bluff, on the Savannah, 25 miles below Augusta, where they abode for some days. The army ascended the Savannah Valley to Franklin County and Mt. Yonah, and traversed the Alleghanies, by Coosawattee and Chiaha (Rome), entering Alabama by the Coosa. Everywhere they sought gold, and 20 years later Tristan de Luna and 300 Spanish soldiers marched from Pensacola to Cherokee Georgia, and opened mines which were worked for over a century.

The foundation of Georgia is due to the benevolence of Gen. James Edward Oglethorpe, a veteran of Prince Eugene of Savoy's staff, and afterwards a member of Parliament, who established here a place where insolvents, prisoners for debt, and other unfortunates might begin the world anew, and where religious freedom should be accorded (except to Catholics). Parliamentary grants of £180,000 were made to further these objects; and Oglethorpe sailed from England in the *Anne*, and reached Savannah (by way of Charleston), February 1, 1733, with 116 immigrants in his company. The Creeks received these new neighbors hospitably, and they soon spread out over Darien, Augusta, St. Simon's Island and other localities. To this haven of peace came colonies of Hebrews, Moravians and Lutherans, and many Bavarians and Scottish Highlanders. In 1736 John and Charles Wesley came over with parties of Methodists; and two years later George Whitefield founded the Bethesda Home, near Savannah. When the war broke out between England and Spain, in 1739, Gen.

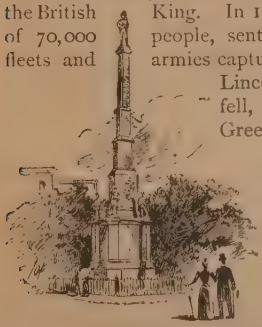
STATISTICS.

Settled at	Savannah.
Settled in	1733
Founded by	Englishmen.
One of the 13 Original States.	
Population, in 1860,	1,057,286
In 1870,	1,184,109
In 1880,	1,542,180
White,	816,906
Colored,	725,274
American born,	1,531,216
Foreign-born,	10,564
Males,	762,981
Females,	779,199
In 1890 (U. S. census),	1,837,353
White,	973,462
Colored,	863,716
Voting Population,	321,716
Vote for Harrison (1888),	40,496
Vote for Cleveland (1888),	100,499
Net State debt (1890),	$8,065,221
Real Property,	$192,000,000
Personal Property,	$75,000,000
Area (square miles),	59,475
U. S. Representatives (1893),	11
Militia (Disciplined),	4,040
Counties,	137
Post-offices,	1,991
Railroads (miles),	4,532
Manufactures (yearly),	
Farm Land (in acres),	26,000,000
Farm Products (yearly)	$112,000,000
School Buildings,	8,000
Average School-Attendance,	226,000
Newspapers,	291
Latitude,	30°21′ to 35° N.
Longitude,	80°48′ to 85°40′ N
Mean Temperature (Atlanta),	61.1°
Mean Temperature (Savannah)	65.5°

TEN CHIEF CITIES AND THEIR POPULATIONS. (Census of 1890.)

Atlanta,	65,533
Savannah,	43,189
Augusta,	33,300
Macon,	22,746
Columbus,	17,303
Athens,	8,639
Brunswick,	8,459
Rome,	6,957
Americus,	6,398
Thomasville,	5,514

Oglethorpe led 1,000 troops against St. Augustine, and was beaten off. In 1742 Don Manuel de Monteano attacked Frederica with 50 vessels and 5,000 men, Florida and Cuban infantry, Spanish marines and Italic dragoons, and was defeated by Gen. Oglethorpe and 652 Georgians, with heavy loss. But two causes worked against the success of the colony: the onerous military duties demanded, which caused many to migrate to the Carolinas, and the prohibition of slavery. The latter was removed in 1750. The trustees of the colony were its law-makers (without pay), until 1752, when a governor and council were appointed by the British King. In 1775 Gov. Sir James Wright fled, and Georgia, then a Province of 70,000 people, sent delegates to the Continental Congress. In 1778-79 British fleets and armies captured Savannah, Augusta and Sunbury, repulsing the assault of Lincoln and D'Estaing on the first-named town. After Charleston fell, Georgia was the scene of a bitter guerilla warfare, until Gen. Greene pacified the State.


AUGUSTA: SOLDIERS' MONUMENT.

The territory of Georgia originally included the region between the Savannah and the Altamaha; and in 1763, after the wars with France and Spain, it was extended south to St. Mary's and west to the Mississippi River. In 1803 the State ceded to the Republic 100,000 square miles, west of the Chattahoochee, and out of this imperial domain Alabama and Mississippi were formed. The Creeks ceded to the United States, by the treaty of Fort Wilkinson, in 1802, the greater part of southwestern Georgia. In 1838 the Cherokees were transported to the West.

When the secession movement began, in 1860, Stephens and Johnson and others strenuously resisted it, their opponents being Toombs and Cobb. For a time it seemed as if the State would not secede, and the mountaineers of remote Cherokee Georgia never joined that movement, but caused much trouble to the Confederate authorities. Yet when the question came up for a vote of the people, 50,243 chose secession, to 37,123 voting for the Union. The chief events of the civil war on the Georgia coast were the occupation of Big Tybee Island by DuPont's Federal fleet (November 25, 1861), and the surrender of Fort Pulaski (April 11, 1862), after a bombardment from Gen. Q. A. Gillmore's batteries on Tybee Island, which levelled much of its walls. DuPont captured and garrisoned Darien, St. Simon's Island, Brunswick and St. Mary's, and destroyed the Confederate cruiser *Nashville* in the Ogeechee River. The monitor *Weehawken* captured the *Atlanta*, a Confederate ironclad, below Savannah. In the autumn of 1863, Thomas's and McCook's Federal corps entered northwestern Georgia, over Lookout Mountain, and flanked the Confederate army out of Chattanooga, compelling its retreat down the Western & Atlantic Railroad. Then suddenly Bragg and Longstreet turned, and threw themselves upon Rosecrans's advancing forces, at Chickamauga, and defeated them, in a three-days' engagement, driving them back to Chattanooga. In this costly battle, 112,000 men were engaged, and one fourth of them met with death or wounds. Some regiments lost over 60 per cent. of their men. Viewing the numbers engaged, and the time, Chickamauga was by far the bloodiest battle of modern times. In May, 1864, Sherman advanced from Chattanooga, and after heavy fighting at Resaca, New Hope Church, Kennesaw Mountain, and many other points, pressed Johnston's army beyond the Chattahoochee, and besieged Atlanta, which was defended by Hood. Within a month the two armies lost 20,000 men about this city, and then Hood retreated and Sherman occupied the place, early in September. November 15, 1864, Sherman burned Atlanta, and began the famous "March to the Sea," with 62,000 men and 65 cannon, spread in a width of forty miles, repulsing the attacks of the Confederates. Macon, Milledgeville, Millen and other towns

AUGUSTA: OLD BELL-TOWER.

GRAND CHASM, TUGALOO RIVER.

were captured, and finally Hazen stormed Fort McAllister, and Hardee was compelled to evacuate Savannah. Three weeks later Sherman left a garrison at Savannah and started on his march through the Carolinas.

For a few weeks Georgia possessed no government except that of the United-States generals, and then James Johnson became provisional governor. In April, 1865, Wilson's Federal cavalry swept over Columbus and West Point, and near Irwinville, May 10th, captured Jefferson Davis. In 1860 Georgia had 462,198 slaves and 3,500 free negroes; in 1880 it had 725,135 free colored people. Under the Reconstruction Acts of 1867, Georgia was placed in General Pope's military command, and the next year the new constitution was framed, and a governor inaugurated, upon which the control of the State passed to the civil authorities. In spite of the devastation of war, the State gained 127,432 in population between 1860 and 1870. Since 1880, a rapid and healthy development has gone forward, and the cotton shipments of Atlanta, Rome and Columbus, the cotton-mills of Augusta and Atlanta, the glass-works of Tallapoosa and many other industries have risen to commanding proportions. In general industrial and business development Georgia leads all the South Atlantic States; and with her noble railway system, her maritime facilities, and her agricultural and mineral wealth, has a glorious future in view. She was the latest of the Atlantic States to be founded, but her growth has been steady and vigorous, and she has become one of the leaders in the great sisterhood of States, filled with the splendid thrill of modern enterprise and development, and the fervor of a noble and patriotic American spirit.

The Name of the State is thus derived: "The projected colony was called GEORGIA in honor of the reigning monarch of England [George II.], who had graciously sanctioned a charter so liberal in its provisions, and granted a territory so extensive and valuable for the encouragement of the plantation." It is now often called THE EMPIRE STATE OF THE SOUTH, in allusion to its rapid and enterprising industrial development.

The Arms of Georgia, adopted in 1799, show an arch inscribed with the word CONSTITUTION, and upheld by three pillars, representing the legislative, judicial and executive departments. Under the arch stands a man with a drawn sword, typifying the military power ready to defend the Constitution.

The Governors of Georgia up to the foundation of the State government numbered 24. The State Governors have been: Geo. Walton, 1789-90; Edw. Telfair, 1790-3; Geo. Matthews, 1793-6; Jared Irwin, 1796-8; Jas. Jackson, 1798-1801; David Emanuel, (acting), 1801; Josiah Tattnall, 1801-2; John Milledge, 1802-6; Jared Irwin, 1806-13 and 1815-7; Peter Farly, 1813-5; Wm. Raburn, 1817-9; Matthew Talbot (acting), 1819; John Clark, 1819-23; George M. Troup, 1823-7; John Forsyth, 1827-9; Geo. R. Gilmer, 1829-31 and 1837-9; Wilson Lumpkin, 1831-5; Wm. Schley, 1835-7; Chas. J. McDonald, 1839-43; Geo. W. Crawford, 1843-7; Geo. W. B. Towns, 1847-51; Howell Cobb, 1851-3; Herschell V. Johnson, 1853-7; Joseph E. Brown, 1857-65; Jas. Johnson (provisional), 1865; Chas. J. Jenkins, 1865-9; Rufus B. Bullock, 1869-72; Jas. Milton Smith, 1872-7; Alfred H. Colquitt, 1877-82; Alex. H. Stephens, 1883; Henry D. McDaniel, 1883-6; John B. Gordon, 1886-90; W. J. Northen, 1890–2.

BRUNSWICK: IN THE PINES.

Geography.—Georgia is the largest State east of the Mississippi, a massive and compact domain of five sides, with its centre near Jeffersonville, which is also the centre of the colored population of the Republic. It lies in the latitude of Algiers, Asia Minor, Persia, Tibet, and Arizona. When the sun rises here it is noon in Switzerland, sundown in China, and midnight on the

Pacific. Georgia is divided into three great sections, Lower, Middle and Upper, with widely different climates and products. Lower Georgia includes more than half the State, with an area of 35,000 square miles, covering the Pine-barrens and sand-hills, the Swamp Belt and the Sea Islands. Here also is the dark and impenetrable Okefinokee Swamp, 180 miles around, a region of dead pools and lonely islands, inhabited by bears and wildcats, and huge alligators and other reptiles. The inner recesses of this vast jungle have never been visited. The peninsulas of high and arable land pushed into the swamp are called cow-houses, because the planters used to pasture cattle upon them, with a man at each isthmus to guard them. These places are inhabited by a primitive and hospitable people, who go out occasionally to buy salt, coffee, and tobacco. Lower Georgia includes the sea-coast, 128 miles long, or, counting the sounds and islands, 480 miles.

KENNESAW MOUNTAIN.

The Sea Islands cover 500 square miles, and are overgrown with great live-oak and palmetto woods. The cultivation of cotton, once so prominent among these unhealthy lowlands, has now greatly fallen off. Jekyl Island, where the last cargo of slaves brought into the United States was landed, from the *Wanderer*, is owned by a club of Northern gentlemen whose wealth aggregates $500,000,000. It is one of the largest game-preserves in America, abounding in pheasants and quail, wild turkeys and deer, and has a costly club-house and admirable roads, with a sea-fronting beach thirteen miles long.

Cumberland Island is 30 miles long, with magnificent forests of oaks, palmettos and palms. It was in olden times occupied by the Dungeness estate of Gen. Nathaniel Greene, of the Revolutionary army. This house has been replaced by the beautiful mansion of Mrs. Thomas Carnegie, of Pittsburgh. Light-Horse Harry Lee was buried at Cumberland, and Count Pulaski on St. Helen's Island. Among the other islands are Ossabaw and St. Simon, Sapelo and St. Catherine. The sounds of St. Andrew and St. Simon, Doboy and Sapelo, St. Catherine and Ossabaw have inlets from the sea, and are navigable for hundred-ton vessels. The harbors of Savannah, Darien, Brunswick and St. Mary's have from 14 to 17 feet of water at low tide.

The foreign export trade exceeds $20,000,000 a year, nearly all being cotton and naval stores, shipped from Savannah. The coasting-trade shipment is largely in excess of this, and includes early fruits and vegetables, fish and lumber, cotton and naval stores. Most of the domestic shipments are made from Brunswick and St. Mary's, the other two ports of entry in Georgia. Georgia has a mercantile fleet of 133 vessels, of 36,000 tons. These waters are famous for their fisheries, of pompano, red-snappers, sea-trout, Spanish mackerel and green turtle. The extensive Savannah and Ogeechee fisheries send the first shad to the North.

For a score of miles inland the land is about twelve feet above the sea. Then it mounts up to 80 feet, which average elevation it retains for 20 miles farther inland, rising there to 150 feet. In the next hundred miles, up to the falls of the rivers, the general height increases to 570 feet. The Hill Country, or Middle Georgia, includes an area of 15,000 square miles, between the falls of the rivers and the foot-hills of 1,000 feet high. The southern part is a broad plateau, breaking towards the north into parallel ranges of high hills, and rich in secluded valleys. The soil is a red loam, very much impoverished by long and exhaustive cultivation.

STONE MOUNTAIN.

Upper Georgia, otherwise known as the Mountain Region, or Cherokee Georgia, is a country

of great landscape beauty, covering 10,000 square miles of the Appalachian Range and its higher foot-hills. The Blue Ridge of Virginia and the Carolinas enters the State at its northwestern corner, and ends abruptly in the Atlanta region. In and near the odd angle of Georgia pushed up between the two Carolinas occur the noblest crests of this range: Sitting Bull (5,046 feet) and Mona (5,039), as the two peaks of Nantihala are called; Mount Enotah, or the Brasstown Bald (4,797); and the Rabun Bald (4,718), not far from Rabun Gap. This region also contains the beautiful Tallulah and Toccoa Falls, and other famous cascades; and many a charming valley, like Rabun and Nachoochee. The famous Nicojack Cave, in the Raccoon Mountains, is entered through a portal 160 feet wide and 60 feet high. The stream issuing thence may be ascended for three miles by boats, to a waterfall. Stone Mountain is one of the largest masses of granite in the world, and attains a height of 2,220 feet. Twenty miles west of the Blue Ridge rises the Cohutta range, 3,000 feet high, continuous with the Unaka Mountains of Tennessee, and fading away in the Dugdown Mountain of Alabama. The northwestern corner of Georgia is occupied by Lookout and Sand Mountains, and their great plateaus, hallowed by the best blood of the Republic, during Sherman's and Johnston's campaign.

TOCCOA FALLS.

TALLULAH FALLS.

The rivers of Georgia are grouped in the Atlantic, Gulf and Tennessee systems. The first includes the Savannah, flowing south southeast 450 miles from the confluence of the Tugaloo and Keewee, in the Blue Ridge, and navigable for ships to Savannah, 18 miles; for steamboats to Augusta, 291; and (passing around the falls by the canal) for 150 miles farther (to Petersburg or Andersonville) by poleboats. Below Augusta many rich cotton plantations line the shores; and farther down are broad rice-fields, succeeded by weird swamps whose live oaks are hung with gray moss. Sloops ascend the Ogeechee for 40 miles, and keelboats go up as far as Louisville, 150 miles. The river is 200 miles long. The tributary river, the Cannonchee, is navigable for 50 miles. In the southeast are the Satilla and St. Mary's Rivers, each with 50 miles of sloop-navigation. The Oconee (navigable to Milledgeville, the ancient capital), and the Ocmulgee (navigable to Hawkinsville, and formerly to Macon) rise in the Blue Ridge, and flow in parallel courses for 250 miles, uniting to form the Altamaha, which reaches the sea 155 miles from their confluence. Large vessels ascend to Darien. The Gulf system of rivers culminates in the Chattahoochee, 450 miles long, and navigable by large steamboats for 300 miles, from the Gulf up to Columbus. This river flows from the Blue Ridge down through the gold country, forming the frontier of Georgia and Alabama from West Point to Florida, breaking into white rapids and then into valuable falls at Columbus. At the Florida line the Flint River (navigable 250 miles up from the Gulf, to Albany) joins the Chattahoochee, and the two form the Appalachicola River. The Withlacoochee and Allapaha form the Suwanee. The Oostenaula and Etowah unite at Rome to form the Coosa; and the Tallapoosa, another tributary of the Alabama, also rises in Georgia. The Oostenaula is navigable by steamboats from Rome to Carter's Landing,

BRUNSWICK: LOVERS' LIVE-OAK.

105 miles; and steamers ply on the Coosa from Rome to Greensport, 153 miles. In the northwest rise the rivers of the Tennessee Basin, draining 1,000 square miles of blue limestone country, with many rich and beautiful valleys.

Climate.—Upper Georgia has a healthy and diversified climate, 60° in the valleys, and 50° on the heights, with frequent snows in winter, and a clear and bracing air. The summer mean is 75.3°; the winter mean, 42.8°. Middle Georgia has a winter temperature of 47.2°, with occasional ephemeral snows, and a summer mean of 79°, with little rain and comfortably cool nights. The rich and swampy low country enjoys a delightful winter climate (48° to 54°), but the six-months summer induces malarial, bilious and typhoid fevers, especially in unacclimated persons. The summer mean is 81.3°. The pine-barrens are more healthy.

SAVANNAH: CHATHAM-CO. COURT-HOUSE.

The evergreen live-oaks of Georgia are famous for their excellence as ship-lumber, and grow abundantly in the southeast, finding their shipping-port at Brunswick. There are a score of other varieties of oaks; six kinds of pines, including the valuable yellow pine; six of hickories, the ash, chestnut, chinquapin, persimmon, haw, sweet-gum, magnolia, cypress, sycamore, tulip and other trees. Over 200,000,000 feet of lumber and timber, valued at $7,000,000, are shipped yearly. The great pine-barrens produce generously tar, pitch, turpentine and resin, of which more than $3,000,000 worth have been shipped from Savannah and Brunswick in a single year, much of it to foreign ports.

The enormous product of the pine-trees of Georgia, in the way of naval stores, is shipped almost entirely from Savannah, whose wharves are sometimes laden with 100,000 barrels of these articles. Great attention has been paid since the war to this trade, and a large proportion of the turpentine and rosin used in the world passes out from the wharves of Savannah, the foremost shipping-port for naval stores. Turpentine is an oleo-resinous substance obtained from incisions in pine-trees, and used for mixing varnishes and paints; and rosin is its residuum after distillation, and finds its use in soap-making. The chief commercial house handling these valuable products of the forest is Peacock, Hunt & Co., of Savannah, who have an honorable distinction as the largest naval-stores factors in the world. They facilitate the course of trade by making cash advances to the manufacturers, and selling their goods on commission. This business was founded in 1877, and has a capital of $500,000. It represents 150 manufacturers of naval stores, whose yearly product reaches 80,000 barrels of spirits of turpentine and 320,000 barrels of rosin, valued at $2,500,000.

SAVANNAH: PEACOCK, HUNT & CO.'S NAVAL STORES.

Farming.—Cotton is the staple crop of the light and sandy soils of southwestern Georgia, and also comes in great quantities from the central counties and the sandy valleys of the north. This is the third State in the product of cotton, and has sent out nearly 1,000,000 bales in a single year, including the bulk of the famous Sea-Island (or long-staple) cotton. Since the freeing of the slaves most of them have worked on the plantations on shares, varying from one third to one half of the crop. Corn is grown all over the State, to the extent of nearly 40,000,000 bushels a year. Wheat, oats, clover, tobacco, sorghum and peanuts are also produced in great quantities. Before the war, rice was raised on the bottom-lands of southern Georgia to the amount of 50,000,000 pounds a year. The crop has never since then reached such figures, but is increasing from year to year, in spite of formidable competition from China. Sugar-cane grows freely in the lowlands.

SAVANNAH: TELFAIR ART-GALLERY.

Sweet potatoes form one of the chief exports, reaching 5,000,000 bushels a year. The fruits of Middle Georgia include the Scuppernong and Herbemont grapes, apples and pears in great variety, and luscious peaches. Fruits ripen 30 days sooner than at the North, and the truckers of the lowlands send immense quantities to New York, together with early cabbages and onions, beans and peas, potatoes and cucumbers. The lowlands produce oranges and lemons, bananas and olives, figs and mulberries, and early strawberries. The Georgia fruit-crop reaches nearly $1,000,000 in value. The watermelons of this region have long been famous as the best in the world. Besides the vast local consumption, millions are shipped North every season. It may be noted as a singular fact that Georgia has 144,000 mules (valued at $13,754,000) to 106,000 horses ($8,736,000). There are also 1,000,000 cattle, worth $12,500,000; 500,000 sheep, worth $800,000; and 1,600,000 hogs, worth $5,500,000.

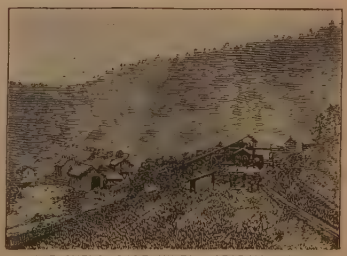
SLOPE MINE, DADE COUNTY: GEORGIA MINING, MANUFACTURING AND INVESTMENT COMPANY.

The Geology of Georgia shows the variegated and plastic clays and deep white sands of the Southern Drift or Quartenary period, over the Tertiary, Eocene, Miocene, and Pliocene, of the Low Country; the cretaceous group, in the west and on the Ogeechee; the metamorphic granites, gneisses and schists of Middle and Northern Georgia, north of the Augusta-Macon-Columbus line, crossed by triassic trap-dikes and slates, and containing everywhere small quantities of gold and silver; the Palalozoic sandstones, shales and limestones of the Blue Ridge; and the carboniferous beds of the Northwest.

RISING FAWN FURNACE: GEORGIA MINING, MANUFACTURING AND INVESTMENT COMPANY.

Minerals.—The Alabama coal-beds run into northwestern Georgia, covering 200 square miles, and offering vast deposits of excellent bituminous coal, much in demand at the smelting-furnaces. The chief mines are in Dade County. Providentially near the coal-beds and limestone hills occur immense deposits of red fossiliferous iron ore, covering 350 square miles. Shinbone Mountain, running for 40 miles parallel to Lookout Mountain, is rich in this valuable mineral, which extends into the Lookout and Pigeon Mountains. Other ores of iron occur in great beds in the Chattoogata and Cohutta ranges.

One of the largest and most important corporations in the world-renowned "New South" is the Georgia Mining, Manufacturing and Investment Company, under the presidency of Julius L. Brown, with his father, Senator Joseph E. Brown, as Vice-President; Franklin Weld, of Boston, General Manager; and Elijah A. Brown, Treasurer. The headquarters are at Atlanta. The paid-up capital is $1,000,000. This corporation owns all of the stock and operates the properties of The Dade and The Castle Rock Coal Companies, with lands in Dade County, and in Alabama and Tennessee, with their connecting railways and coke-ovens; The Georgia Iron & Coal Company, and the Bartow Iron & Manganese Company, owning immense deposits and mines of manganese and hematite iron ores, and their railroads, near Cartersville; the Walker Iron & Coal Company, with its great Rising-Fawn furnace, and lands on Lookout Mountain, rich in fossil iron ores and coal; and The



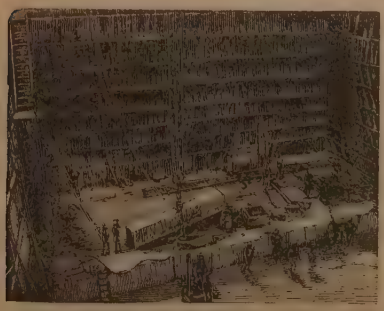
COKE-OVENS, DADE MINES: GEORGIA MINING, MANUFACTURING AND INVESTMENT COMPANY.

HYDRAULIC MINING, BARTON COUNTY: GEORGIA MINING, MANUFACTURING AND INVESTMENT CO.

Chattanooga Iron Company, with its furnace. Its two furnaces produce 160 tons of pig iron daily; and its mines produce 160,000 tons of coal and coke a year. The total acreage of lands is about 48,000, with 22½ miles of railroad. The union of so many vast and valuable properties under one control ensures a most favorable advantage for the company to cheaply produce pig iron, concentrating under one management the mining of manganese, of iron ore, of coal, and the manufacture of coke by cheap labor which the company controls.

The recent development of Georgia marble commenced in 1885, since which time immense quantities have been quarried, and the product has been distributed all over the United States. The principal advantages that this marble has over others are unusual strength and density, conclusively shown by tests and experiments made by expert authorities. It will not absorb moisture, and consequently does not disintegrate in any climate. This fact also renders it valuable for interior decorations, as it cannot be injured by any discoloring agents. The crushing strength averages 750 tons per square foot. The Georgia Marble Company is one of the most notable industries on this continent. It represents a value of several million dollars. It owns 6,172 acres of solid beds of marble, at Tate, in Pickens County; and here there are five large quarries, equipped with the best modern machinery, and producing 2,000 cubic feet of marble daily. Other features of this great plant are the three finely-equipped mills for sawing marble; eight steam derricks; a travelling derrick 500 feet long, capable of storing 200,000 cubic feet of stone; 30 steam machines for cutting marble in quarries; 16 steam boilers; complete machine-shops; 50 buildings, including tenement-houses; and a standard-gauge railway of nearly seven miles, with locomotives and equipments. The marble is produced in many different tints, as white, white with dark spots and veins, dark mottled and variegated blue, pink, salmon, orange and olive. This beautiful material is sent all over the United States, and used not only for the walls of buildings and their interior decoration in floors and wainscots, and mantels, but also for monuments and tombs, drug-counters and soda-fountains, imposing stones, butchers' and fish-mongers' tables, and many other ornamental and industrial purposes. It is a true crystalline marble, pre-eminent in strength, and showing a wonderful variety of colors. One of its chief virtues is an invincible non-absorbent quality, and this ability to resist all liquids gives it a peculiar value for public buildings. The deposits already bored and tested are sufficient in quantity to supply the world for centuries. Already the Creole, Etowah, Kennesaw, and Cherokee marbles of this company are widely in use throughout the Union, especially in banks, hotels, and office-buildings, besides for the exteriors of some of the finest houses in the country.

TATE: GEORGIA MARBLE COMPANY.



TATE: GEORGIA MARBLE COMPANY'S DEEP QUARRY.

The product of the Georgia Marble Co. was at first mainly used at Chicago, Cincinnati

and other western cities, where there are many buildings constructed thereof. As its fame became more widely known, large eastern orders came in, and now the business of the company reaches nearly every State, and the new product, whose existence was hardly known six years ago, is now one of the great staple commodities of the country.

WATERMELON CULTURE.

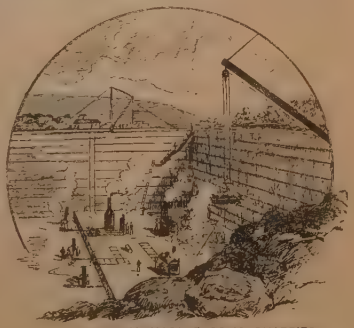
The Kennesaw marble is partly clear and sparkling white, and partly like veined Italian, in spots and lines of pale blue. The Creole marble is a dark mottled variety, blue-black on a clear white or gray ground, giving a very rich and beautiful effect. The Cherokee is white, or blueish gray, with darker spots and clouds. The Etowah includes pink, salmon and rose tints, and dark green shades, and many variegations and blendings thereof. Sometimes it has a peculiarly delicate and beautiful amethystine color.

Gold was discovered in Habersham County in 1831, and the United-States Mint at Dahlonega coined over $6,000,000 between 1837 and 1861. The town of Dahlonega stands on the gold-belt, and precious nuggets and dust are found in its streets. Hydraulic mines were once worked, and much free placer gold rewarded the treasure-seekers. The word *Dahlonega* is Indian for "Yellow Gold." When the white Americans learned of the presence of the precious metal in this region, they entered on all sides, although the country by treaty and occupation belonged to the Cherokees; and this invasion has always since been known as "the intrusion." Of recent years, northern capitalists have taken some interest in the abandoned gold-mines of Georgia, and the long lethargy which has enwrapped these hills seems to be nearly at an end. It is possible that in the remote depths of the mountain-land there may be vast treasuries of gold, to be discovered and exploited by future generations.

During their palmy days, the gold-fields of the Southern Alleghany Mountains yielded over $20,000,000. The coins minted at Dahlonega bore an initial letter D. The old mint and its ten acres of grounds were given by Congress to the State of Georgia in 1871; and pertain to the North Georgia Agricultural College, a branch of the University of Georgia.

The Cohutta Mountains have deposits of iron and manganese, lead, silver and gold. The State contains many other minerals, including mica and plumbago, soapstone and white and pale-green talc, asbestos and gypsum, kaolin and fire-clay, marl and phosphate, magnesia and barytes, copper and pyrites. Granite, slate and sandstone are quarried in great quantities, and diamonds, opals, rubies and other gems have been found, but in limited number, and of small value.

The Government rests in a governor and executive officers elected by the people every two years. The governor appoints the commissioner of schools, and the railroad commissioners are elected by the General Assembly. The biennially-meeting General Assembly contains 44 senators and 175 representatives, elected for two years. The Supreme Court has three justices, and there are superior and county courts, and courts of ordinary. The Constitution of 1868 excludes slavery and secession; makes duellists ineligible to vote or hold office; and gives the suffrage to every male citizen of Georgia. The Capitol, at Atlanta, is an imposing structure of Indiana stone, finished in 1888, at a cost of $862,000, the funds coming from a special tax. The Georgia Volunteers form the largest militia force in the South, and include the First Regiment (Savannah), the Second, Third, Sixth and Ninth Bat-


TATE: GEORGIA MARBLE CO.'S QUARRIES.

SAVANNAH: FOUNTAIN, FORSYTH PARK.

talions, and 18 companies of infantry, eight troops of cavalry, and two batteries. The Georgia Volunteers, Colored, include the First (Savannah) and Third (Augusta) Battalions, numbering eleven companies, and 14 unattached companies. The military spirit runs high among the young men of Georgia, but the State is economical in the equipment of her troops. The Chatham Artillery, of Savannah, dates from 1786, and has volunteered in every war since. When Washington visited Savannah, he presented the company with two handsome bronze cannon, taken from Lord Cornwallis at Yorktown, and these venerable six-pounders are still owned by them. The colored militia companies are among the best in the Union. The police force of Savannah has the unusual organization of regular troops.

The Georgia Lunatic Asylum, near Milledgeville, has 1,400 inmates (one third of them colored), with nine detached brick buildings. The Georgia Institution for the Education of the Deaf and Dumb was opened in 1846, in a log cabin at Cave Spring. It has 84 pupils. The Methodists have orphans' homes at Decatur and Macon. The convict-camps contain over 1,500 prisoners, nine tenths of whom are negroes. The yearly mortality, of nearly two per cent., is a terrible evidence against this system of punishment.

The National Institutions in Georgia culminate in the new ten-company military post of McPherson Barracks, near Atlanta. The United-States Arsenal stands in the environs of Augusta. Fort Pulaski is a five-sided brick work, with casements and barbette batteries and a wet ditch, isolated among the marshes and islands, 14 miles below Savannah. It has been rebuilt and strengthened since the civil war, when it received a terrible pounding from the United-States batteries. Fort Oglethorpe is three miles from Savannah. Both these works are ungarrisoned. There are six light-houses on the Atlantic coast and 24 lights on the Savannah River. Near Andersonville was the horrible prison-pen in which the Confederates kept 44,882 National soldiers, 13,000 of whom died here of hunger, disease, filth, vermin and despair. It was a side-hill field of 1,540 by 750 feet, surrounded by a stockade, with many sentries, and cannon pointing inward. The National Cemetery contains 13,714 graves; and another National Cemetery at Marietta enshrines the remains of 10,151 soldiers who died in the great campaigns against Atlanta.

The Newspapers include 28 dailies, 195 weeklies, and 34 others. Eleven are devoted to religion, 9 to education, 6 to farming, and 5 to medicine. Prohibition, labor-reform, and woman suffrage have their local organs; and there are several newspapers printed by and for the colored people. The *Augusta Chronicle* dates from 1785; the *Macon Telegraph*, from 1826; and the *Columbus Enquirer*, from 1828. The literary products of Georgia have been among the brightest in American history, and include Harris's *Uncle Remus*, Longstreet's *Georgia Scenes*, Thompson's *Major Jones*, Smith's *Bill Arp*, Johnston's *Dukesborough Tales*, Col. C. C. Jones's brilliant historical works, and the poems of Hayne, Lanier, Randall (of *My Maryland*), Ticknor, Wilde, Hubner and Father Ryan.

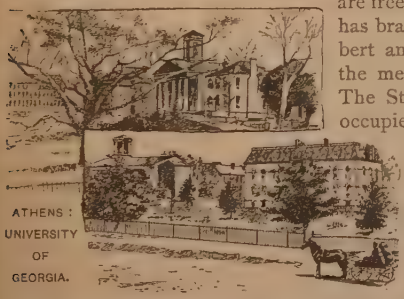
The Atlanta *Constitution* is happily responsible for much of the prosperity of Georgia in its new developments of wealth and industry. This great journal of the people and exponent of Southern thought and progress was founded in 1868; and the *Weekly Constitution* now enjoys the largest circulation of any weekly edition of a daily paper in the United States, being over 150,000 copies each week. One of the chief texts of this paper has always been: "If the South can keep at home the $400,000,000 received annually for the cotton crop, she will soon be rich beyond competition. As long as she sends it

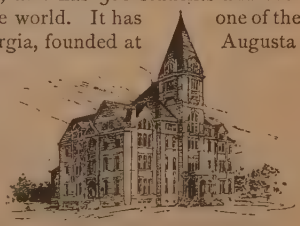
ATLANTA: CENTRAL RAILROAD STATION.

out for the supplies that make the crop, she will remain poor." The enthusiasm with which the *Constitution* has kept this subject before the people, and continually exploited the natural wealth, beauty and power of the South, has been a noble factor in the upbuilding of Georgia and its sister States. Among the gifted writers of this paper have been Henry W. Grady, Joel Chandler Harris (Uncle Remus), Howell, and others. The Atlanta *Constitution* is one of the most successful and most prosperous newspapers in the country.

ATLANTA: ATLANTA CONSTITUTION.

Education.—There was no common-school system before the war, although certain funds were allotted to the counties, for the teaching of indigent children. The general school-law of 1868 established a very efficient system of State, county and district schools. The fund is above $800,000. The University of Georgia received its charter in 1785, and began its work in 1801. Since that time it has graduated many eminent and useful men, including Stephens, Cobb, Toombs, Hill and Johnson, 200 legislators, 26 congressmen, 60 judges, 4 governors, and 2 bishops. In all its departments it has above 1,200 students. The campus at Athens covers 37 acres of the high hills over the Oconee, besides the experimental farm of 60 acres; and the property of the University is valued at $700,000. There are free scholarships for 315 Georgians. The University has branch colleges at Dahlonega, Thomasville, Cuthbert and Milledgeville, devoted partly to agriculture, the mechanic arts and military tactics and exercises. The State College of Agriculture and Mechanic Arts occupies the Moore College on the University campus. The Georgia School of Technology was opened in 1888, at Atlanta, as a branch of the State University, with 150 white students. It is a school of construction and a practical manufactory, well endowed and possessing fine brick buildings. The law-school is at Athens; the medical school at Augusta. Emory College, with six buildings in an oak grove of 40 acres, on the high granite ridge of Oxford, was chartered in 1836, and pertains to the Methodist Episcopal Church, South. It has 15 instructors and 300 students, and schools of technology, law, telegraphy and design. The finest of its buildings is Seney Hall. Mercer University arose in 1838, at Penfield, and was removed to a fine plateau near Macon in 1871. It is a Baptist institution, with affiliated schools of law and theology. Hearn Institute, at Cove Springs, is its preparatory school. Shorter College, for girls, founded in 1873, has handsome modern buildings on Shelton Hill, Rome, overlooking the Coosa and Oostenaula Valleys. The Wesleyan Female College on Encampment Hill, commanding Macon, dates from 1836, and has 300 students and over 1,200 alumnæ. This is the oldest college for women in the world. It has one of the finest buildings in the South. The Medical College of Georgia, founded at Augusta in 1829, has become a department of the University. There are three medical schools in Atlanta. The Piedmont Chautauqua owns several hotels and scores of handsome houses, a great tabernacle seating 6,000 people, a gymnasium, a hall of philosophy and other college buildings, amid the emerald lawns, flower-beds and fountains of a beautiful park at Salt Springs, 21 miles west of Atlanta, on the Georgia Pacific route. There is another Chautauqua


ATHENS: UNIVERSITY OF GEORGIA.


ATLANTA: SCHOOL OF TECHNOLOGY.

at Albany, in southwestern Georgia. The Telfair Academy of Arts and Sciences was founded about the year 1875, in the old Gov.-Telfair mansion at Savannah, and under the care of the ancient Georgia Historical Society. The art gallery contains many valuable paintings, and is under the directorship of Carl L. Brandt, N. A.

The Catholics have academies at Savannah, Washington, Macon, Augusta and Atlanta. Pio Nono College, at Macon, is now a novitiate and training-school for Jesuits.

The chief institution for educating colored people is Atlanta University, opened in 1869, and now possessed of 60 acres of land and four good buildings, with collegiate, normal, industrial and preparatory schools. Its graduates are mainly engaged in teaching. Clark University, at Atlanta, is a Methodist-Episcopal school, with four fine buildings and the well-endowed and prosperous Gammon School of Theology. It has also an excellent industrial school. The Atlanta Baptist Seminary has 146 students. The Morris-Brown College, overlooking Atlanta, was opened in 1885, having been organized by the ministers of the African Methodist Episcopal Church in Georgia. The Paine Institute, opened in Augusta in 1884, has 133 young colored men and women, in normal, theological, industrial and music classes; and Spelman Seminary, at Atlanta, has 27 instructors and over 600 colored girls, with several valuable buildings.

THE PIEDMONT CHAUTAUQUA, NEAR ATLANTA.

The leading libraries in Georgia are the State Library, 45,000 volumes; the University Library, 20,000; the Georgia Historical Society, 16,000; the Macon Public Library, 10,000; the Young Men's Library Association of Atlanta, 12,000; and Mercer University, 10,000.

Chief Cities.—Savannah stands on a low bluff over the deep Savannah River, which here forms a crescent nearly a league long. It is one of the handsomest of American cities, embellished with many embowered public squares and the pine-shaded Forsyth Place, with its shell-walks and beautiful fountain (a copy of that in the Place de la Concorde, Paris). In these streets the camellias and oleanders grow as trees, and the sidewalks are overhung with orange and banana trees, myrtles and bays, magnolias and palmettos. In the suburbs is the famous Bonaventure Cemetery, roofed in by the interlacing branches of live-oaks, draped with hanging gray moss. Savannah has established a valuable system of railroads, which bring to her fine harbor the products of Georgia, Upper Florida, and much of Alabama and Tennessee. It ships vast quantities of cotton and lumber, rice and naval stores, the yearly exports exceeding $70,000,000 in value. Regular lines of steamboats ply on the inland passages between Savannah and Fernandina, Florida; and a line of first-class ocean-steamships runs to Baltimore and Philadelphia, New York and Boston. It should be remembered that the very first transatlantic steamship was projected and owned in Savannah, and bore her name; and sailed from this port in 1819. Among the most beautiful new buildings in Savannah are the grand and luxurious hotel, the De Soto, and the picturesque court-house of Chatham County.

SAVANNAH: BONAVENTURE CEMETERY.

A short railway runs seaward to the summer-village of Isle of Hope, on the Skidaway River, near the Benedictine negro mission on Skidaway Island, and the site of George Whitefield's Orphans' Home. Farther down is the sea-viewing bluff of Montgomery, the headquarters of Georgia yachtsmen. Thunderbolt, Beach Hammock and Tybee Island are other marine pleasuring resorts below Savannah.

ROME: SHORTER COLLEGE.

Augusta, the third city in Georgia, receives 200,000 bales of cotton yearly, much of which is brought in by huge six-mule wagons. The city was laid out by Gen. Oglethorpe, and named for an English princess. It stands on a fertile plain near the forest-bordered Savannah River, which is crossed by a bridge leading to Hamburg (S. C.). The water-power canals cost $3,000,000, and run eight completely equipped cotton mills, with 200,000 spindles. More brown goods (or unbleached domestics) are made here than anywhere else in America, and find a ready market in Africa and China. Green Street, the pride of the city, is parked for two miles with four rows of stately trees, rivalling the avenues of Schönbrunn. The city has eight railways centering within its limits, and 25 miles of electric railways.

Atlanta is 1,067 feet above the sea, and enjoys a cool and bracing highland climate. Numerous railways centre here, and have caused the charred ruins of 1865 to rise into a brilliant and beautiful modern city, with fine public buildings and parks, manifold industrial enterprises, broad and well-paved and shaded streets, and a net-work of mule and electric cars reaching far into the country. The Piedmont and Capital-City Clubs are the chief social organizations. Atlanta is called "The Gate City," because it is the gateway between the great West and the Atlantic coast, by way of the rich cotton belt. Its suburbs are developing with remarkable rapidity; lovely wooded parks are being improved; and handsome residences adorn nearly every street. There is a more liberal and national spirit here than in any other Southern city.

MACON: WESLEYAN FEMALE COLLEGE.

Rome, perched up on the northwestern highlands, is a well-known trade-centre, cotton-depot, and health-resort. Macon, on the Ocmulgee River, has half a dozen railroads, and a great country-trade, and serves as the chief cotton-market for several counties.

Brunswick, 60 miles from Savannah and 70 miles from Jacksonville, stands on a peninsula surrounded by salt water and sheltered by outer islands. Its streets are over-arched by live-oaks and cedars, palmettos and magnolias, and many Northerners find here an agreeable winter-resort. The imports and exports exceed $8,000,000 a year; and 24 steamers visit the port every week. This port is growing in commercial importance more rapidly than any other on the Atlantic coast, having quadrupled its population in ten years. Its magnificent harbor, deep, spacious and well-sheltered, is the ocean terminus of the finely equipped and far-reaching East-Tennessee, Virginia & Georgia Railroad.

MACON: U.-S. COURT-HOUSE AND POST-OFFICE.

Darien is the distributing point for the Altamaha, Oconee and Ocmulgee, and exports over $1,000,000 worth of lumber yearly. Among the other towns are West Point, a place of cotton-mills; Valdosta, productive of naval stores; Newnan, shipping much cotton; Milledgeville, the ancient capital; Marietta, a favorite health-resort, near Kennesaw Mountain; Griffin, with mills and country-stores, amid cotton-fields and orchards; and Dalton and Americus, trade-centres for broad rural countries. Thomasville is a well-known winter health-resort amid the rolling Piney Woods, 350 feet above the Gulf, which is 55 miles distant,

across the fertile hills of Tallahassee. The climate is peculiarly dry, and hence favorable for sufferers from pulmonary troubles. Eastman, in the park-like upland pinery of Middle Georgia, has a great hotel, for its health-seeking pilgrims. Hillman, amid the high pine-lands 65 miles from Augusta, is famous for its great electric shaft, sunk to a ledge of alum rock, and visited by thousands of rheumatics, who form electric circuits by touching hands, one of them resting a hand on the rock. The cures wrought by this simple process seem miraculous. The Bowden-Lithia Springs, near the Piedmont Chautauqua, send out great quantities of water in bottles, and are provided with singular hot baths. The Catoosa Springs, near Ringgold, are iron and sulphur; the Madison Springs are near Athens; the Bethesda Springs are 29 miles from Gainesville; the Warm Springs (90°) on a spur of Pine Mountain, are tinctured with sulphur and iron; the Red Sulphur Springs are near Lookout Mountain; and the Indian Springs (sulphur) are near Griffin.

MARIETTA.

In 1886, Savannah dedicated a statue of Gen. Nathaniel Greene, of the Continental Army. Two years later, she unveiled a monument to Sergeant Wm. Jasper. An older monument commemorates Count Pulaski, who was killed while leading one of the American columns in the assault on the city, in 1779. Augusta has a granite monument to the Georgia signers of the Declaration of Independence, and a marble memorial to the Confederate dead. Atlanta has a noble statue of the late Senator B. H. Hill, on Peach-Tree Street, its fashionable thoroughfare.

The Railroads are controlled by three commissioners, with caution and conservatism. The Central Railroad of Georgia runs from Savannah to Macon, 192 miles, and Atlanta, 295 miles, and leases 13 lines, including the routes from Millen to Augusta, 53 miles; Gordon to Eatonton, 38 miles; Smithville to Eufaula, Ozark and Montgomery; Fort Valley to Perry, 12 miles, and Columbus, 71 miles; Smithville to Albany, 24 miles; Cuthbert to Fort Gaines, 22 miles; Macon to Smithville, 83 miles; Barnesville to Thomaston, 16 miles; and Griffin to Carrollton, 60 miles. This company also controls lines in Alabama and South Carolina. The Savannah, Florida & Western Line was built in 1853–67, and is a part of the Atlantic Coast Line. It runs from Savannah to Chattahoochee, 258 miles, with branches to Albany and Monticello. From Waycross to Jacksonville, the distance is 34 miles; and another line runs from Dupont to Live Oak. This is the main route to Florida.

The Piedmont Air Line (or Richmond & Danville System) from New York to the remote Southwest, is carried through 100 miles of Georgia by the Atlanta & Charlotte Air Line, reaching the finest mountain-scenery in the State, and passing near the celebrated Toccoa and Tallulah Falls and the Nacoochee Valley. The Air Line is prolonged westward of Atlanta by the Georgia Pacific route, which traverses Anniston and Birmingham and reaches the Mississippi River 459 miles from Atlanta.

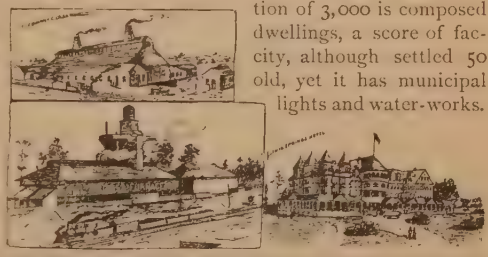
ATLANTA.

The East-Tennessee, Virginia & Georgia line runs from Brunswick to Macon and Atlanta, Rome and Chattanooga, 431 miles. The 189 miles between Brunswick and Macon were built in 1859–69, at a cost of $4,000,000. This important company has a vast business on its various routes, traversing regions singularly rich in minerals and in farm-products, and reaching the sea at one of the best harbors on the American coast.

The Western & Atlantic Railway, 138 miles from Atlanta to Chattanooga, is the main highway between the Ohio Valley and the Southern Atlantic coast, and became the objective

point of Sherman's bloody and victorious campaigns in 1864. It was built in 1850, at a cost to the State of about $7,000,000. There are many other railways in Georgia, of local value and importance. The Ogeechee Canal, joining the Savannah and Ogeechee Rivers, was built in 1829 40, and is 16 miles long, 120 feet wide, and three feet deep, and has five locks. The Augusta Canal runs from the Savannah River at Augusta, around the falls in the river. It was built in 1847, at a cost of not far from $1,500,000, and is nine miles long and eleven feet deep, with a strong current.

Tallapoosa is a thriving and prosperous young city in Haralson County, in the mountain region of the northwest. Its population of 3,000 is composed chiefly of Northerners. Here are 700 dwellings, a score of factories, and 50 business houses. The city, although settled 50 years ago, is in fact only three years old, yet it has municipal government and institutions, electric lights and water-works. Its chief industries are the Piedmont Glass-Works and the Tallapoosa Furnaces, both in successful operation. Here are two banks, schools, churches and two weekly newspapers. Besides the three small hotels, the Lithia-Springs Hotel, now building, will cost about $100,000. It is on the Georgia-Pacific Railroad, and the Georgia, Tennessee & Illinois Railroad is under construction. The recent growth of Tallapoosa is due to the energetic manner in which it is being developed by the Georgia-Alabama Investment & Development Company, a corporation officered by a group of able men, whose names have a national eminence. But the future is based on the wonderful resources within and around its borders,—the long leaf pine, hard woods, and charcoal timber; inexhaustible quantities of steam and coking coal; brick, terra-cotta and fire-clays; building and glass sand; clear mountain water; gold, marble, and other minerals; and a surrounding soil that is fertile for vegetables, cereals and cotton, and especially for profitable fruit-culture. Tallapoosa, being on the western escarpment of the Piedmont plateau, and 1,200 feet above the sea level, has a fine climate, and is remarkable for its healthfulness.



TALLAPOOSA: GLASS-WORKS, IRON FURNACE, AND LITHIA-SPRINGS HOTEL.

The Finances are in the prosperous condition shown by the fines and penalties, licenses and taxes more than meeting the State's expenses, while a sinking-fund is lowering the public debt. The lessees of the Western & Atlantic Railroad pay $420,000 a year to the State, and $25,000 a year is received for the hire of convicts. By the acts of 1879 and 1887, pensions are given to all disabled Confederate soldiers of Georgia. The State's valuation in 1860 reached $646,000,000. Ten years later it had fallen to $268,000,000 as a result of the war, and the emancipation of myriads of negro slaves.

The Southern Bank of the State of Georgia, at Savannah, operates under a charter from the State, but has no connection with it other than being one of its designated depositories. It was started in 1870, just when the South was beginning to recover from the convulsion that had wrecked nearly all its financial enterprises, and has kept pace with the growth of its section, and is now one of the most important financial institutions south of Baltimore, and by far the foremost bank in Georgia. Its capital is $500,000, and its surplus fund and undivided profits $700,000, with deposits of $2,000,000 and gross assets of $3,600,000. Confining its operations to no special lines, it has aided to develop each legitimate branch of business, and fostered and encouraged every industry that promised to

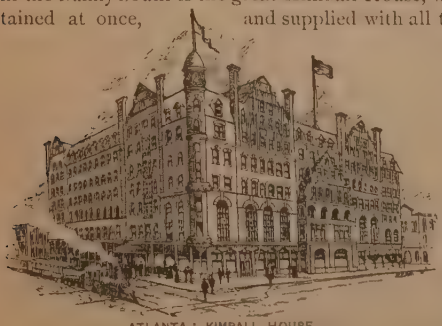
SAVANNAH:
SOUTHERN BANK OF THE STATE OF GEORGIA.

advance the interests of the community. An important feature is its Department of Savings, which, besides encouraging in all classes habits of thrift and economy, has saved from waste innumerable trifling sums which, by aggregation, form a large addition to Savannah banking capital. As the development of the South — great as it has been — is only in its infancy, this institution has a future of which its past, though successful, is only an indication.

S. M. Inman & Co. does the largest interior cotton business of any firm, not only in America, but in the world. From a small beginning of 1,500 bales of cotton for the year 1867 the business has steadily grown until now they handle between 300,000 and 400,000 bales. Many of the largest mills in the United States are among their patrons, and they do an immense domestic business in the Atlantic States, while their foreign shipments are growing to colossal proportions. Every member of the firm is thoroughly trained in the cotton business by many years' experience, and their corps of assistants number many able and skillful men. The business in the Atlantic States is done under the firm-name of S. M. Inman & Co., with headquarters at Atlanta, Ga.; while the business west of the Mississippi River, under the slightly different name of Inman & Co., for the mere sake of distinction, has its principal office at Houston, Texas. They employ in all the departments of their business some 500 men, and have warehouse and compress accommodations for 50,000 bales of cotton at one time. With ample capital and unlimited credit, they are in the market throughout the season, and are always free buyers of cotton to fill the orders of their correspondents.

ATLANTA: S. M. INMAN & CO.

The most interesting building in Atlanta for the wayfarer in the Sunny South is the great Kimball House, where nearly a thousand guests may be entertained at once, and supplied with all the comforts and luxuries demanded in this age of refinement and luxury. The original hotel on this site was erected after the Civil War, by an enterprising Northerner; and after its destruction by fire, the present house rose on its site, for the benefit of pleasure-travellers, tourists bound for Florida and New Orleans, prospectors for business enterprises, and visitors who find delight in the pure air of Atlanta and the beautiful scenery of the historic highlands of Georgia. Under the management of Charles Beermann & Co., the Kimball House takes rank among the best conducted and most successful hotels of the whole country. It is situated in the heart of the city; architecturally it is very attractive, and throughout it is handsomely furnished.



ATLANTA: KIMBALL HOUSE.

Manufactures.—In 1880, Georgia factories, capitalized at $20,672,410, paid $5,266,152 to 24,875 operatives, and from raw material valued at $24,143,939 made goods worth $36,440,998. Four years later the capital and products had doubled, with great cotton mills at Columbus, Augusta, Atlanta, Macon, Athens, West Point and Decatur; 32 woolen-mills; $20,000,000 in iron and steel works; and $10,000,000 in flour and meal mills. The prosperous manufacturing enterprises of Georgia have risen since the war, favored by admirable water-powers, cheap labor, exemption from taxation, easy transport by rail or river, and the presence on the ground of cotton and wool, coal and iron. The manufacture of cotton goods employs 10,000 hands, 8,000 looms, 340,000 spindles, and produces $25,000,000 yearly, from 100,000 bales of cotton. Savannah makes parlor and sleeping and box cars. Atlanta has large street-car works and cotton-mills.

HISTORY.

Idaho lay hidden beyond the Plains and Rocky Mountains for centuries after the settlement of the East, unregarded and unknown, except by the adventurers of the Hudson-Bay Company. It is hard to tell how it came to be a part of the Union, whether as a fragment of the Louisiana purchase or as a section of the Oregon Country. The first white men in Idaho were Lewis and Clark's exploring party, in 1805–6, followed by the Missouri Fur Company and the Pacific Fur Company; by Capt. Bonneville, in 1834; and by missionaries. In 1834 N. J. Wyeth founded Fort Hall, which was an important point in emigrant days, being at the crossing of the Missouri-Oregon and Utah-Canada trails. The Territory of Idaho was formed in 1863, from parts of Washington, Dakota, and Nebraska, and then included the present Idaho and Montana and most of Wyoming. Attention was called to this mountain-walled solitude in 1860, when thousands of Californian miners flocked into it, after the discovery of gold on Oro-Fino Creek. These adventurers aroused the hostility of the Indians, who fought them at many points, and the defiles of Owyhee and Salmon River often echoed with the terrible war-whoop. The U.-S. troops were withdrawn to fight for the Union, and this region was defended by the First Oregon Cavalry. In 1883–84 occurred the Cœur-d'Alêne stampede, when 5,000 gold-hunters crossed the terrible snows of the mountains.

The Name of Idaho is Indian in origin, and is said to mean "The Light on the Mountains," applied to the lustrous view of the snowy peaks at sunrise. Joaquin Miller says that the Indians pronounced it *E-dah'-hoe.* Three names, Shoshone, Montana and Idaho, were submitted to Congress, and the latter was chosen, through the insistance of Geo. B. Walker, of Idaho, and Senator Wilson, of Massachusetts. The Shoshones had a legend of a bright object falling from the skies, and

STATISTICS.

Settled at	Fort Hall.
Settled in	1834
Founded by	Americans.
Admitted as a State,	1890
Population, in 1870,	14,999
In 1880,	32,610
White,	29,013
Colored,	3,597
American-born,	22,636
Foreign-born,	9,974
Males,	21,818
Females,	10,792
In 1890 (U. S. Census),	84,385
Population to the square mile,	0.4
Voting Population (1880),	14,795
Vote for Governor in 1890 (Rep.),	10,262
Vote for Governor in 1890 (Dem.),	7,948
Net Territorial Debt,	$200,855
Taxable Property,	$26,000,000
Area (square miles),	84,800
U. S. Representatives (1893),	1
Militia (Disciplined),	334
Counties,	18
Post-offices,	282
Railroads (miles),	844
Manufactures (yearly),	$1,200,000
Farm Land (in acres),	328,000
Farm Population,	
Farm-Land Values,	$2,800,000
Colleges,	1
Public Schools,	365
School Children,	10,433
Newspapers,	46
Latitude,	30°21′ to 25°
Longitude,	80°48′ to 85°40′ W.
Temperature,	—38° to 115°
Mean Temperature (Fort Boisé),	52° 46′

TEN CHIEF CITIES AND THEIR POPULATIONS. (Census of 1890.)

Boisé City,	2,311
Montpelier,	1,174
Weiser,	901
Paris,	893
Bellevue,	892
Wallace,	878
Lewiston,	849
Caldwell,	779
Grangeville,	540
Cœur-d'Alene,	491

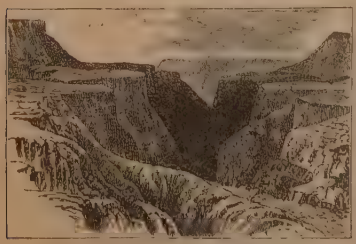
resting on a mountain, forever shining, but forever inaccessible, even to the bravest warriors and hunters. This they called *Idaho*.

EMIGRANT TEAM AT WATER.

The Arms of Idaho bear a view of the Snake River, with the Owyhee Mountains on the left, and the Pannock and Bannock Mountains on the right. The crest is a full-antlered elk's head. The motto is ESTO PERPETUA ("Let it endure forever").

The Governors have been: Wm. H. Wallace, 1863–4; Caleb Lyon, 1864–6; David W. Ballard, 1866–7; Samuel Bard, 1870; Gilman Marston, 1870–1; Alex. Connor, 1871; Thos. M. Bowen, 1871; Thos. W. Bennett, 1871 6; Mason Brayman, 1876–80; John B. Neil, 1880–3; John N. Irwin, 1883; Wm. N. Bunn, 1884 5; Edw. A. Stevenson, 1885–9; Geo. L. Shoup, 1889–90; and N. B. Willey (acting), 1890–92.

Descriptive.—Idaho has been likened in shape to a great chair, with the Rocky and Bitter-Root Ranges as its front, seat and back. It also nearly resembles a right-angled triangle, whose hypothenuse is the Bitter-Root Range. The streams flow to the Pacific, except Bear River, which enters the Great Salt Lake. It is the twelfth American commonwealth in area, being larger than all New-England, and about equal to Pennsylvania and Ohio united. Utah and Nevada are on the south; Wyoming and Montana, east; British Columbia, north; and Washington and Oregon, west. The straight western frontier is more than 400 miles long; the southern, 300; the northern, 50, and the eastern border runs due north for 130 miles, and then follows the Rocky Mountains northwest. The mean elevation is 4,700 feet, the surfaces being greatly diversified, from the confluence of the Snake and Clearwater Rivers, 676 feet above the sea, to the summits of the Rocky Mountains, high above the snow-line. It is a vast wedge-shaped table-land, rising from the west to a height of 10,000 feet in the east, and, as Prof. Hayden says: "Literally crumpled or rolled up in one continuous series of mountain ranges, fold after fold." The great Wahsatch and Rocky Mountains extend along the southeast, and a small part of the Yellowstone National Park is in Idaho. The Bitter-Root Mountains begin near Gibbon's Pass, and run northwest to the headwaters of the St. Joseph, beyond which the Divide is prolonged by the Cœur-d'Alêne Range. Central Idaho is a great mass of wild sierras, among which the Salmon-River and Clearwater Mountains extend for long distances, and the Sawtooth Range lifts its sharp rocky spires. Among these ridges are park-like valleys like the Camas Prairie, with 500 square miles of rolling farm-lands; the Payette Valley, abounding in grain and cattle; and part of the famous grain-bearing Palouse country, about Genesee. Boisé Valley, sixty miles long, is a rich farming and mining country, sheltered by the Boisé Mountains, and with large areas reclaimed by the canals of the Idaho Mining & Irrigation Company. In the east, the Lemhi Valley, seventy miles long and four to six miles wide, is famous for its crops and dairies. The Pahsamari Valley, twenty-five


GREAT CANON OF THE SALMON RIVER.

CABINET GORGE, CLARK'S FORK.

PORT-NEUF VALLEY.

miles long, has great herds of cattle. In northern Idaho are the St.-Joseph's and Potlatch Valleys, and North Camas Prairie; and eastern Idaho has in the Salt-River, Bear-River, North-Fork, South Fork, Blackfoot and Rome Valleys a thousand square miles of good soil.

The Surveyor-General divides Idaho into 25,000,000 acres of grazing lands, 10,000,000 acres of forests, 13,000,000 acres of farm-lands, and 8,000,000 acres of sage-brush plains. Much of southern Idaho is a dry and black lava desert, 400 miles long and 50 miles wide, cut deep down, 1,000 feet or more, by the sheer cañons of the Snake River and other streams, and by many great crevasses. The northern part of the plain has a wonderfully weird appearance, as of a black sea suddenly turned to stone. The soil elsewhere in the valley is sandy and unstable, and the chief vegetation is enormous sage-brush and bunch-grass, but irrigation is redeeming it for farming. Within the bend of the Snake River is an immense basaltic plain, out of which rise the granite crests of the Three Buttes, famous landmarks for overland emigrants. South of the Snake the valleys and foot-hills contain bunch-grass and arable bottom-lands, alternating with abrupt ranges of mountains, which are dotted with a few evergreens and aspens. The beautiful Malade, Cache, Gentile, Bear-River and other valleys open away into the Utah basin, and are occupied by Mormon hamlets, around which extend broad farms, with efficient irrigation systems. The Bear-Lake country has a mountain of sulphur, and deposits of lead and coal. The latter is also mined on Irwin Creek and at Lewiston. Close to Bear River is the health-resort of Soda Springs, with its alterative and tonic iron, sulphur and magnesia waters, sparkling, effervescent and pleasant, and highly charged with carbonic-acid gas. One of these fountains Frémont named the Steamboat Spring, on account of its measured puffs of steam. In this vicinity are sulphur lakes, a deep ice-cave, and the beautiful Swan Lake. The most famous springs are the Mammoth, Hooper and Ninety-Per-Cent; and there are also mud, hot, ammonia, and gas springs. The waters are 5,779 feet above the sea, among the Wahsatch Mountains, in a pure and dry air, of great benefit to consumptives. They were a favorite resort of Brigham Young, and many Salt-Lake Mormons frequent them now; and other well-to-do persons have built summer-cottages. The large hotel is called the Idanha. About 500,000 gallons of water are bottled every year.

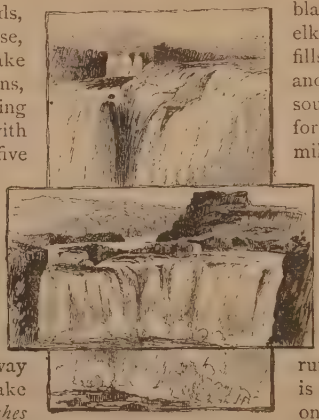
SCENE ON SNAKE RIVER.

Bear Lake is a magnificent oval, twenty by eight miles, whose deep and mountain-fed waters abound in trout and mullet, and ripple up sandy shores below Paris, Montpelier and other peaceful Mormon villages. The valley is 5,900 feet above the sea, and Bear Lake remains ice-bound from January to April. Southwestern Idaho is occupied by a dreary alkali desert, out of which rise the Owyhee Mountains, famous for their silver-mines. There are 10,000,000 acres of forest in Idaho, producing a vast and valuable timber-supply. White-pine logs 100 feet long and five feet thick have been cut on the Clearwater. In the south the forests are mainly along the highlands, but in the north they cover the entire country, and include valuable tracts of red cedar, lodge-pole and yellow pines, and great spruces.

LAKE PEND 'OREILLES.

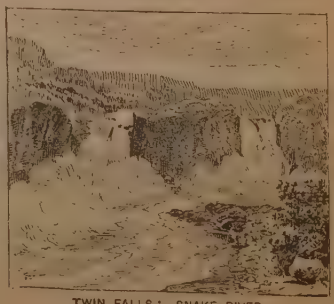
The lakes of Idaho are its most beautiful features. Lake Pend 'Oreilles is thirty miles long and from three to fifteen miles wide, studded with green islands, and surrounded by Granite

Mountain, the snowy Pack-Saddle Range, the purple Cœur-d'Alêne Mountains, and other peaks, nearly 10,000 feet high. The scenery has been likened to that of the world-renowned Königs-See, in Bavaria. The lake has 250 miles of shore-line, and is navigated by several small steamboats. The Northern Pacific Railroad follows the north shore for twenty-five miles, and has a summer-hotel at Hope. This fine inland sea abounds in trout, grayling and char; and game-birds, black and cinnamon bears, mule and white-tailed deer, moose, elk, and caribou dwell in the forests. Cœur-d'Alêne Lake fills a wide gorge in the spurs of the Cœur-d'Alêne Mountains, and bears the form of a letter E, with its branches pointing southeast. Its irregular and lonely shores are clad with forests of pine and tamarack. The expanse is twenty-five miles long and from one to four miles wide, with a depth reaching 180 feet, a wild Windermere of clear, cold, light-green water, abounding in trout and other fish, and stocked with millions of white-fish. The mountain-born St. Joseph River flows into its southern bay, and is navigable for twenty-five miles; and five miles below the Cœur-d'Alêne River enters, ascended daily by the steamboats to Old Mission, thirty-five miles up, whence a narrow-gauge railway runs to Mullan and Burke, in the mining country. The lake is agitated at evening by mysterious swells, like the *seiches* on Lake Geneva. The Spokane River flows out of its northern end, and runs 100 miles west to the Columbia, like a great canal. Farther north, under the lonely Cabinet Mountains, in a land inhabited mainly by caribou, deer and bears, Lake Kanik-su covers 200 square miles. This remote locality, forty miles from the railway, is visited only by hunters, trappers and prospectors. Henry Lake and Cliff Lake, in the southeast, are surrounded by the high peaks and basaltic cliffs of the Rocky Mountains, each being above a league long. The clear, cold unfathomed depths of the Payette Lakes (one of which is ten by two miles) lie at the head of the beautiful Long Valley.



SHOSHONE FALLS.

The chief river is the Snake, called by the Indians the Shoshone, and by the early explorers Lewis's Fork of the Columbia. It is a rapid stream, running for a thousand miles in Idaho, and draining nearly two thirds of its territory, receiving many large tributaries, like the Salmon, Port-Neuf, Wood, Boisé, Owyhee, Weiser, and Clearwater, from the Idaho side, and many others from Oregon. These are valuable for mining and irrigation, but cannot be navigated, except the Clearwater. The Salmon River is 450 miles long, traversing a wild and picturesque valley. Around the headwaters of the Snake, near Yellowstone Park, there are rich bottoms, followed by 150 miles of valley-lands. The American Falls are forty feet high, plunging over a lava stairway; and the Oregon Short Line crosses the river amid their roar and spray. Below Goose Creek the Snake enters a profound cañon, within whose gloomy depths it flows for seventy miles. In this chasm the river sweeps through a group of five volcanic islands, amid which occur several cascades; and then forms the magnificent Shoshone Falls, descending in full volume, 950 feet wide, over a semi-circular cliff 225 feet high, torn by projecting rocks of jetty lava into cataracts of white foam and rainbow-crossed spray. At times the volume of water nearly equals that of Niagara, and the fall is one third higher. Richardson calls it "a cataract



TWIN FALLS: SNAKE RIVER.

FERRY AT SHOSHONE FALLS.

of snow with an avalanche of jewels, amid solemn portals of lava, unrivalled in the world save by Niagara." This remarkable locality is twenty-five miles from the railway, by a stage-route over the olive and gray desert; and has a hotel for tourists. The Twin Falls of the Snake River (150 feet high) are three miles above the Shoshone Falls. Forty-five miles below the river plunges over the Salmon Falls. The Snake is navigable from a few miles above the Boisé River to Powder River, 100 miles below.

The Hailey Hot Springs, high up in the Wood-River Valley, are strongly mineralized, and have a temperature of 144 , with a large hotel, and luxurious bathing facilities, surrounded by a beautiful park. Similar accommodations are provided at the Guyer Hot Springs (150°), near Ketchum; and the Boisé Hot Springs.

The Panhandle is traversed by Clark's Fork, and the Kootenai and Spokane Rivers, affording attractive scenery. At Post Falls, on the Spokane, the deep, still river falls eighteen feet, and forty feet in rapids, making a valuable water-power for the lumber-region hereabouts.

The Climate varies greatly, and the perpetual snows of the mountain-walls look down on lovely temperate valleys, dry and equable, and warmed by the winds from the Black Current of Japan. The plains have cold and bracing winters, between the severe climate of the mountains and the mildness of the valleys. The summers are cool and pleasant. People with consumption and malaria, asthma and general debility, find this highly oxygenated air beneficial. Cyclones and floods are unknown here, and sunstroke and hydrophobia are equally strangers. Lewiston has a milder climate than Iowa, Ohio or New Hampshire; and the higher placed Boisé City is warmer than Connecticut. The sunshiny days number 260 in each year.

Agriculture in southern Idaho is based on irrigation, which causes oases of verdure to spring up in the arid desert. In northern Idaho irrigation is not essential. The farmers find good markets in the mining camps. Among their products are over 1,500,000 bushels of wheat and 1,300,000 bushels of oats yearly, with large crops of barley and potatoes, 530,000 tons of hay, and $1,000,000 worth of fruits. Flax, rye, alfalfa, sorghum, and huge vegetables are produced abundantly. The untilled plains are rich in wild fruits, and flowers of great brilliance and beauty. The Mormons of the south also raise large crops of cereals. The grazing capabilities are availed of by 600,000 horses and cattle, and 350,000 sheep, yielding 2,000,000 pounds of wool yearly. They winter in the open air and fatten on bunch-grass and white sage.

SHEEP-SHEARING CORRALS.

STOCK RANCHE.

Mining has been hampered by the remoteness of the railroads, yet some of the richest placers and veins in America are worked here; and the Rocky-Mountain range for 400 miles abounds in gold and silver. Gold was discovered as early as 1852; and again on Oro-Fino

BRANDING CATTLE.

Creek in 1860; at Boisé, in 1862; and in the Owyhee Mountains in 1863. The State has produced above $160,000,000 in the precious metals. The early products came mainly from the gold placers, by sluice and hydraulic methods. The "flour gold," of the river-sands, was so fine that it had to be separated by slowly running it over mercury-covered electro-plated sheets of silver. Owyhee County, larger than Massachusetts, has the Oro-Fino, Poorman and other gold and silver mines, very rich in ore, but expensive to work. The Wood-River district of Alturas County produces several million dollars' worth of silver-bearing lead yearly, and considerable gold, with a dozen concentrators and a score of smelting works and mills; and has numerous mining-villages, toward the Sawtooth Mountains. The placers of Snake River and the silver-lodes about Boisé and Atlanta are also worked with profit. The Leesburg district has produced $7,000,000 in placer-gold; and Lemhi County has rich regions of gold quartz and silver carbonates. The Custer-County mines have produced over $10,000,000, from the Custer, Charles-Dickens, Bay-Horse, and other lofty mountain-mines. The Warren and Elk-City districts of Idaho County have many gold and silver mines. The Cœur-d'Alêne region has developed placer-gold, with great silver and lead mines along the South Fork and the Bitter-Root Mountains. Thousands of miners are at work here. Ledges of free-milling chloride of silver were discovered in 1888, south of Lake Pend 'Oreilles; and there are gold-mines along Clark's Fork. The Peacock copper-mines are near the Snake River, and 4,000 feet above it, and the other wonderful deposits of the Seven-Devils region are now coming into notice. The Lost-River copper mines are very rich. Iron has been found at many points. There are large mica deposits on the Middle Weiser, and elsewhere. The Goose-Creek valley has mines of coal, or brown lignite. Marble is quarried on the Snake, and large deposits of it occur elsewhere. Granite, limestone and sandstone are also found. The Oneida Salt Works have produced 2,000,000 pounds a year of the purest and whitest salt, made by boiling the water which flows freely from saline springs near the Old Lander Emigrant Road.

COWBOYS NOONING.

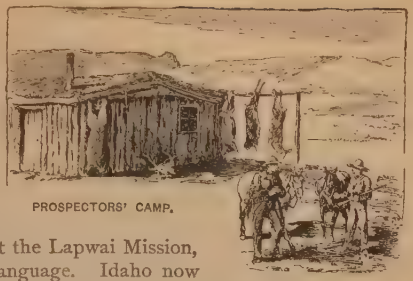
The Government lies in the hands of a governor and executive officers, and a biennial legislature. There are eighteen senators and thirty-six representatives. The Capitol was erected in 1885-7, in the centre of a square given by Boisé City, a pleasant tree-shaded town in a rich fruit country. This is the social centre of the State, and the quaint norias or water-wheels in front of its cottages pour refreshing streams into the gardens. Near the city is the beautiful and secluded Cottonwood Cañon. The 120 local convicts are kept in the United-States Penitentiary, two miles east of Boisé City. The Insane Asylum at Blackfoot has about fifty inmates.

"THE POORMAN," CŒUR-D'ALENE MINING DISTRICT.

The public schools are supported by local taxation, and endowed with two sections of land in each township. Much opposition has been made to the schools in the Mormon counties of the South. The State University at Moscow has a valuable land-

grant. Wilbur College at Lewiston, is a Methodist school, with sixty-seven students; and there are other sectarian schools.

Idaho has 48 Mormon churches, with 237 high priests, and 15,000 members; 7 Catholic churches, and 7 Presbyterian, 9 Episcopalian and 5 Baptist churches.



PROSPECTORS' CAMP.

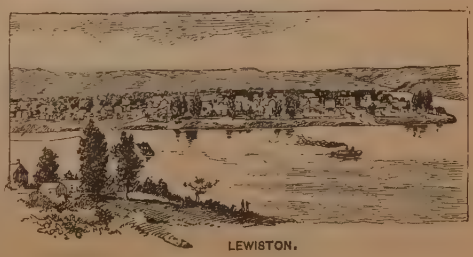
The first printing press west of the Rocky Mountains, and north of California, was given by the Protestant native church of the Sandwich Islands, and set up in 1836 at the Lapwai Mission, Idaho, for printing books in the Nez-Percé language. Idaho now has thirty-seven newspapers, three of which are daily.

Fort Sherman was established by Gen. Sherman at the north end of the beautiful Cœur-d'Alêne Lake, ten miles from Rathdrum station, and is an eight-company post. Boisé Barracks is a two-company post, not far from the Capitol, with handsome stone buildings, on a reservation a mile square. The United-States Assay Office occupies a massive stone building at Boisé City.

Paris, on Bear Lake, 5,836 feet above the sea, is the capital of the Mormon settlements made in 1863, and has a many-colored granite Mormon Tabernacle, the finest church in Idaho. Silver City is the metropolis of the Owyhee silver-mines. Murray nestles in a deep ravine, near the famous Dream Gulch. Florence, 6,265 feet above the sea, is one of the loftiest villages in the State.

BOISE CITY.

Railroads.—The long valleys of Idaho furnish available routes for railways, of which there are 800 miles in operation, although in 1876 not a rail had been laid. The Oregon Short Line runs for 481 miles in Idaho, through the Bear-Lake country, down the savage Port-Neuf Cañon, across Snake River and its illimitable lava-beds, and through the fruit country from the Malade to the Weiser. A branch line runs from Shoshone to Ketchum (sixty-nine miles); and the Idaho Central runs from Nampa to Boisé City. The Utah & Northern, one of the most important narrow-gauge railways in the world (454 miles long), traverses the eastern side of Idaho for 206½ miles, crossing the Oregon Short Line at Pocatello, and ascending the Snake valley many leagues, after which it climbs the Rockies to Monida, and traverses Montana to the Northern Pacific Railroad. Its southern terminus is at Ogden, Utah, on the Union Pacific Railway, which owns a majority of its stock. The Northern Pacific Railroad crosses northern Idaho from Heron to Hauser. A branch leads from Hauser Junction to Cœur-d'Alêne City, thirty-three miles, whence steamboats run to Old Mission, connecting with a railway to Mullan and Burke, and to Missoula, Montana. Another branch reaches Genesee. The Great Northern Railway is being built across Northern Idaho.



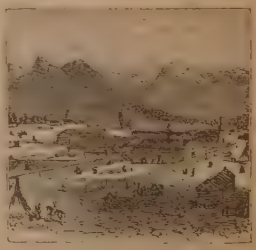
LEWISTON.

Steamboats run on the Snake between Lewiston and Riparia; on the Lower Clearwater, from Lewiston to the North Fork; and on the Cœur-

d'Alêne Lake and River. Two steamboats run on Lake Pend 'Oreilles. Stages traverse the roads in every direction.

The flour-mills and lumber-mills of Idaho produce over $1,000,000 yearly, and form its chief manufacturing interests, outside of the production of bullion.

The Shoshones, or Snake Indians, are a peaceable and industrious tribe, good horsemen and hunters, and now turning to agriculture. The Lemhi Reservation of 106,000 acres and the Fort-Hall Reservation of 1,200,000 acres (with an industrial school), are set apart for the Shoshones and their offshoot tribes, the brave but uncivilized Bannocks, and the barbaric Sheep-eaters. There are 2,200 Indians at these agencies. The western Shoshone Reservation, in Owyhee, has 400 inhabitants. The Shoshones and Nez Percés have been among the firmest friends of the Americans. The Sahaptins were called Nez Percés by the French voyageurs, from *Nez Pres*, "Flat-Noses," or perhaps because they pierced their nostrils to receive shell-ornaments. In 1855 they divided into the Treaty and Non-Treaty tribes, one settling on the Lapwai Reservation and the other roaming free. In 1877 an attempt was made to force the Non-Treaties to live at Lapwai, but under Chief Joseph's lead they defeated Col. Perry in White-Bird Cañon; gave Gen. Howard a long day's battle on the Clearwater; crossed the Bitter-Root Mountains; defeated Gen. Gibbon; recrossed to Horse Prairie; surprised Howard's camp and stampeded his horses; then entered the Yellowstone Park, and endeavored to reach Canada. One band succeeded, but the main body suffered capture at the Sweet-Grass Hills, in Montana, and were taken to Leavenworth and Indian Territory. Seven years later most of them returned to Lapwai and the Colville Reservation. There are 1,200 Nez Percés here, with schools and farms, on a fertile reservation of 746,651 acres. In 1889 Special-Agent Alice S. Fletcher began to allot the land to them in severalty. The Skizoomish Indians were named by the early French voyageurs Awl-Hearts ("Cœur-d'Alêne"), indicating that their spirits were small and hard, as shown by their shrewdness in trade. In 1820 they numbered 2,000, but there are only 250 left now, although the tribe has never been at war with the United States. They are self-supporting farmers, educating their children at the nuns' schools, and attending the Catholic Mission of the Sacred Heart, founded in 1841. Their reservation covers 600,000 acres, near Cœur-d'Alêne Lake. The Kootenais in the north, are reputed to be gentle and honest, but poor and lazy.



LAKE PEND 'OREILLES MISSION.

"It was the common judgment of the first explorers that there was more of strange and awful in the scenery and topography of Idaho than of the pleasing and attractive. A more intimate acquaintance with the less conspicuous features of the country revealed many beauties. The climate of the valleys was found to be far milder than from their elevation could have been expected. Picturesque lakes were discovered nestled among the mountains, or furnishing in some instances navigable waters. Fish and game abound. Fine forests of pine and fir cover the mountain-slopes, except in the lava region; and nature even in this phenomenal part of her domain, had not forgotten to prepare the earth for the occupation of man, nor neglected to give him a wondrously warm and fertile soil to compensate for the labor of subduing the savagery of her apparently waste places."

LAKE CŒUR D'ALENE.

HUBERT HOWE BANCROFT.

HISTORY.

In the dawn of its history Illinois is seen thinly populated by tribes of savages, forever at war, and wreaking upon each other the most horrible tortures. The Illinois were a confederacy of Algonquin Indians, including the Peoria, Kaskaskia, Cahokia, Tamaroa, and Michigan tribes, dwelling in and near the State that commemorates the name. They drove out the Arkansas; nearly annihilated the Winnebagoes, in 1640; suffered murderous defeat by the Iroquois, in 1680, losing 1,300 warriors; fought the Sioux; attacked the frontiers of Virginia; joined the French in fighting the Chickasaws; and in 1719 were quite naturally reduced to 3,000 persons. After a season of war against the United States, the fragments of the nation were led by their chief, Du Quoin, to the Indian Territory. The Kickapoos originally occupied the region south of Lake Michigan, whence they advanced southward to the Sangamon. They were the most implacable enemies of the Republic, and fought Harrison, Harmar, St. Clair and Wayne, and when expelled from Illinois they migrated to Mexico, to escape American rule.

The first Europeans to visit this land of massacre were the envoys of religion and commerce. Pushing westward from the rock of Quebec into the vast continental wilderness, the heroic Champlain reached Lake Huron in 1615, and Jean Nicolet discovered Lake Michigan in 1634. In 1673 Father Marquette and Louis Joliet (a Quebec-born fur-trader) crossed Wisconsin by the Fox and Wisconsin Rivers, and descended the majestic Mississippi, being the first Europeans to see Illinois, whose people welcomed them with festivals and peace-pipes, as they ascended the tranquil Illinois River. Incited by Joliet, La Salle and Tonti in 1679, made further exploration. Near the site of Buffalo (N. Y.) they built the *Griffin*, and thus sailed to the Wisconsin shore, and presently ascended

STATISTICS.

Settled at	Kaskaskia.
Settled in	1720
Founded by	Frenchmen.
Admitted as a State,	1818
Population, in 1860,	1,711,951
In 1870,	2,539,891
In 1880,	3,077,871
White,	3,031,151
Colored,	46,720
American-born,	2,494,295
Foreign-born,	583,576
Males,	1,586,523
Females,	1,491,348
In 1890 (U. S. census),	3,826,351
Population to the square mile,	55
Voting Population,	796,847
Vote for Harrison (1888),	370,475
Vote for Cleveland (1888),	348,271
Net State debt, exceeded by funds in hand.	
Assessed Valuation of Property (1890),	$727,000,000
Area (square miles),	56,650
U. S. Representatives (1893),	22
Militia (Disciplined),	4,045
Counties,	102
Post-offices,	2,462
Railroads (miles),	10,214
Manufactures (yearly),	$415,000,000
Farm Land (in acres),	32,500,000
Farm-Land Values,	$1,010,000,000
Public School Average Attendance,	518,043
Newspapers,	1,714
Latitude,	36°59′ to 42°30′ N.
Longitude,	87°35′ to 91°30′ W.
Mean Temperature (Beloit),	47½°
Mean Temperature (Cairo),	58½°

TEN CHIEF CITIES AND THEIR POPULATIONS. (Census of 1890.)

Chicago,	1,099,850
Peoria,	41,024
Quincy,	31,494
Springfield,	24,963
Rockford,	23,584
Joliet,	23,264
Bloomington,	20,484
Aurora,	19,688
Elgin,	17,823
Decatur,	16,841

CHICAGO: THE CRIB, LAKE MICHIGAN.

the St.-Joseph, and in canoes drifted down the Kankakee, a quiet five-foot stream, zig-zagging through the tall prairie-grasses. Tonti was a witness of the unspeakable horrors of the Iroquois invasion, when hundreds of Illinois women and children were burnt at the stake. Subsequently La Salle formed a confederation of Kickapoos, Miamis, Illinois, Piankeshaws and Shawnees, with above 2,000 warriors, defended by earthworks, and grouped about Fort St. Louis, near Starved Rock. In 1680 La Salle and Hennepin founded Fort Crêve-Cœur. Cahokia and Kaskaśkia were established as Catholic missions, and an important French commerce flowed between the Great Lakes and the Mississippi Valley, by the Chicago and Illinois Rivers. The French colonies flourished, and developed farms and mills, chapels and forts, in the American Bottom, and lived at peace with the Indians. The country was governed first from Quebec, and then from New Orleans, until 1763, when it passed by cession into the hands of Great Britain. Capt. Sterling of the 42d Highlanders, then became its governor, arriving at Fort Chartres in 1765. The chief French villages were Notre Dame de Cascasquias (Kaskaskia), with its stone monastery and fortress; St. Famille de Kaoquias (Cahokia), founded by Canadians who married Cahokia squaws; and Prairie du Rocher, near old Fort Chartres. The French Illinoisans dwelt in thatched and white-washed one-story houses, and dressed in white capotes, coarse blue garments and moccasins.

PEGUM-SAUGUM POINT, NEAR LA SALLE.

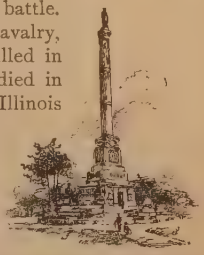
Virginia had always claimed the country northwest of the Ohio as hers by right of charter, and in 1778 Col. George Rogers Clark, acting under her authority, chose 150 men, with whom he descended the Ohio to near Fort Massac. Thence they marched for several days, and seized the sleeping town of Kaskaskia. The French people gladly took the oath of allegiance to the United States, and persuaded their compatriots at Cahokia and Vincennes to embrace the American cause. Virginia governed her conquest by county lieutenants, and the earliest American immigrants were Virginians, who, in 1781, settled along the American Bottom. The magnanimous cession of the Northwest Territory to the Union, made by Virginia in 1784, placed Illinois under the National jurisdiction. In 1809 the Illinois Territorial government was organized, including Wisconsin, Michigan and Minnesota. The population in 1800 was 2,358, largely French; and during the next ten years 10,000 immigrants came in, mainly from the Southern States. During the decade 1830-40, the population increased 318,738, and in the next decade the increase was 375,281. Fort Dearborn was erected by the Government at Chicago in 1804. In 1812 it was evacuated by the garrison, under orders, but before they had marched a league on their way to Fort Wayne, 500 Pottawatamies attacked the little column, and massacred two thirds of them, capturing the remainder and holding them for ransom.

STARVED ROCK AND ILLINOIS RIVER.

The Mormons founded the city of Nauvoo, on the Mississippi, in 1840, and erected an imposing temple; but their doctrines aroused among the settlers an opposition which became serious. In 1844, Joseph and Hiram Smith, the Mormon chiefs, were put in prison at Carthage, where a mob overpowered the guards, and slew the

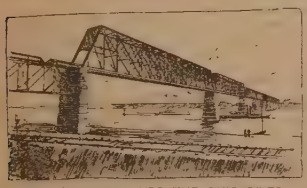
captives. After a cannonade of a long day's duration between five Illinois and five Mormon guns, in which 800 cannon-balls were fired, Nauvoo surrendered, and its people suffered ejectment. A year later, the Mormons abandoned Nauvoo, and set out on their march beyond the Rocky Mountains, to found new homes by the Great Salt Lake.

Six regiments went from Illinois to the Mexican War. As soon as the late civil war broke out, Gov. Yates garrisoned Cairo, and put Illinois in line of battle. During the war she sent out 156 regiments of infantry and 17 of cavalry, and 33 batteries, numbering 259,092 men. Of these 5,888 were killed in battle, 3,022 died of their wounds, 19,596 died of disease, and 967 died in Southern prisons. May 23, 1878, 340 flags and guidons borne by the Illinois volunteers were transferred from the State Arsenal to the Memorial Hall in the State House, with imposing military ceremonies, and under the escort of marching columns.


CHICAGO: DOUGLAS MONUMENT.

The vast inflowing of immigration, the development of internal improvements, and the legislative settlement of important local questions give material for many interesting chapters of history. The latest dramatic scene on Illinois soil occurred May 4, 1886, when 180 policemen, endeavoring to disperse an Anarchist mob in Chicago, were attacked with dynamite and revolvers, and lost seven killed and sixty wounded. Seven of the leading Anarchists were tried and convicted; four were hung, two went to prison, and one committed suicide. Thus fell the power of anarchy in the New World.

The Name of the State is a Canadian-French attempt to express the word *Illiniwik*, which in Algonquin is a verbal form, "We are men." The *wek* gradually got written *ois*, pronounced *way*. We say Illy-noy; but the French said Illeenweek. This account agrees with Albert Gallatin, who translated the word *Illini* (the same as *Leni* of the Delawares) as *Superior Men or Real Men*. Among the pet names for Illinois are THE PRAIRIE STATE, *The Garden of the West*, and *The Sucker State*. The term *Sucker* as applied to an Illinoisian is attributed to a Missourian, who said to a party of Illinois men going home from the Galena mines: "You put me in mind of suckers; up in the spring, spawn, and all return in the fall." The old-time lead-miners always passed their winters at home, returning to Galena in the season when the sucker-fish were running plentifully. Douglas said: When George Rogers Clark's brave little army of Virginians charged into Kaskaskia, they perceived the French citizens sitting on their verandahs and imbibing mint-juleps through straws. In thunder tones the rangers shouted: "Surrender, you suckers."


CAIRO: BRIDGE OVER THE OHIO RIVER.

The State Arms bear an American spread eagle, perched upon a boulder on the prairie, with a rising sun in the background. This device has been in use since 1819. The motto is: STATE SOVEREIGNTY — NATIONAL UNION.

The Governors of Illinois have been: *Territorial* — Ninian Edwards, 1809–18. *State* — Shadrach Bond, 1818–22; Edward Coles, 1822–26; Ninian Edwards, 1826–30; John Reynolds, 1830–4; Wm. L. D. Ewing (acting), 1834; Jos. Duncan, 1834–8; Thos. Carlin, 1838–42; Thos. Ford, 1842–6; Aug. C. French, 1846–53; Joel A. Matteson, 1853–57; Wm. H. Bissell, 1857–60; John Wood, 1860–1; Richard Yates, 1861–5; Richard J. Oglesby, 1865–9, and 1873; John M. Palmer, 1869–73; John L. Beveridge, 1873–7; Shelby M.

NORMAL: STATE NORMAL UNIVERSITY

CHICAGO : STATE INDUSTRIAL EXPOSITION.

Cullom, 1877–83; John M. Hamilton, 1883–85; Richard J. Oglesby, 1885–9; and Joseph W. Fifer, 1889–93.

Descriptive.—Illinois is separated from Iowa and Missouri by the Mississippi River, on the west; from Kentucky, by the Ohio River, on the south and southeast; from Indiana by the Wabash and a north and south artificial boundary, on the east; and from Wisconsin by a straight line of 140 miles on the north. Illinois is a vast grassy plain, broken by many streams into small prairies, and imperceptibly sloping away toward the Mississippi. It has inexhaustible depths of heavy black vegetable loam, easily tilled and amazingly fertile, and free from stones, sand or gravel. The upland prairies are underlaid with deep drift deposits, over which lies three feet of vegetable and animal mould. The river bottoms form wide belts of alluvial soil. No territory of equal size in the world shows such a uniform productiveness of soil. With an area exceeding that of New York, or of England and Wales combined, it has less than a square league of sterile land. Out of its 102 counties 74 have produced yearly above 1,000,000 bushels of wheat and corn each; and 24 more have produced above 500,000 each. The distribution of live-stock is equally general. The soil is so rich that deep ploughing and fertilizing are not needed, and the crops are changed only when the prices of other grains than those cultivated rise. The American Bottom follows the Mississippi from Alton to Kaskaskia, 90 miles long, with a width of two leagues. The Grand Prairie extends for 200 miles between the waters flowing to the Mississippi and those flowing to the Wabash, broken here and there by picturesque fringes and points of woodland. There are hundreds of other fertile plains, like the Bonpas, Looking-Glass, Bellevue, Burnt, Hancock, Long, Round, Ridge, and Lost Prairies. Their nutritious wild grasses were in ancient days the pasturage of myriads of buffalo. In marked contrast with the prairies are the bold bluffs and cliffs along the rivers, like Fountain Bluff, on the Mississippi; the legend-haunted Starved Rock, Lover's Leap, and Buffalo Rock, on the Illinois; and the heights over the weird Cave in the Rock, on the Ohio, a castellated pile of ledges, once the lair of river-pirates.

QUINCY : CITY HALL.

The highest points in Illinois occur where the Wisconsin plateau enters the State, and ends in bluffs and hills 800 feet above the sea, and from 200 to 300 feet above the prairies. The inland rivers, the Illinois, Sangamon, Rock and others, are bordered by rounded grassy bluffs, overlooking vast expanses of farm-lands, rich in grain. Here and there amid the prairies similar island-like mounds are uplifted from golden fields of wheat and green expanses of corn, crowned with dark groves. In the south rises the long clay ridge of Egypt, rich in northern fruits and vegetables. This low plateau runs from Grand Tower, on the Mississippi, to Shawneetown, on the Ohio, and is succeeded by a broken country, extending to the confluence of the great rivers, where Cairo hides behind her levees.

EVANSTON : GARRETT INSTITUTE.

Most of the 288 streams flow toward the Mississippi, with available water-powers on their upper courses, followed by sluggish levels, with greatly fluctuating waters. The noble Mississippi forms the western boundary for 700 miles, and is traversed by an unceasing procession of steamboats. The Ohio and Wabash, on the south and southeast, are also navigated by large commercial fleets. The Des-Plaines (150 miles) and Kankakee (230 miles) unite 45 miles southwest of Chicago, and form the Illinois River, running southwest 500 miles, and reaching the Mississippi

CHICAGO: CALUMET CLUB.

20 miles above the Missouri. It is navigable 213 miles, to La Salle, through a rich level country; and receives the waters of the Fox, Sangamon, and Vermillion. Rock River flows for 300 miles through open and undulating prairies. The Kaskaskia River has been navigated by steamboats up to Carlisle. The pleasant lake-country of Wisconsin extends into northeastern Illinois, whose Lake County is dotted with pretty sheets of clear water. The favorite of these is Fox Lake, about 50 miles from Chicago, and the chief of a series of forty shining lochs, famous for fish and wild-fowl, and surrounded by grassy knolls and wooded slopes. Scattered through this region are summer-hotels and club-houses, and on the lakes float many yachts and small steamers.

Although a prairie State, Illinois is endowed with large areas of woodlands, amounting to seven per cent. in the 40 northern and Grand-Prairie counties, 15 in the 21 Illinois-Valley counties, and about 25 per cent. in the remaining country. There are a hundred species of native forest-trees, oak, ash, maple, and others, with cypress, sycamore, red-bud, and sweet gum in the south. The black walnut, poplar, and other native woods are used in immense quantities by furniture factories. The destruction of the native forests has been in part repaired by systematic tree-planting. The buffalo, elk and deer have vanished, and only a few lone wolves and foxes lurk in the remote forests. The wild pigeons still visit the forests by thousands. Of late years fish have been propagated in the depopulated streams, and guarded by stringent laws, and great numbers of wall-eyed pike, black and white bass, croppie, German carp, white and ringed perch, catfish, sunfish, buffalo, pickerel and pike are now caught by rural anglers.

Adler & Sullivan, Architects.
CHICAGO: STANDARD CLUB.

The Climate is pleasant and healthy, and perpetual breezes blow over the prairies, modifying the summer-heats, while Lake Michigan makes the neighboring region warmer in winter and cooler in summer. The diversity of the climate depends largely on the extent of the State north and south, one end being in the latitude of Boston, the other in that of Fort Monroe. The seasons come with great regularity, favoring agriculture, and the rainfall is abundant and seasonable, averaging 36 inches in the north and 42 in the south. The fluctuations in temperature are often great and sudden, but the vital statistics show that the climate is remarkably healthy, while the crop reports bear witness to its high fitness for agricultural development and the growth of great and valuable supplies of breadstuffs.

The Farm-Products of Illinois have reached $270,000,000 in a single year (grain, $145,000,000; live-stock, $50,000,000; dairy articles, $27,000,000; hay and potatoes, $26,000,000). The farm-property is valued at above $1,000,000,000. The average price of improved land is $33 an acre. New methods of scientific farming, the use of modern machinery, the extension of careful underdraining, and the intelligence of thousands of skilled farmers are developing valuable agricultural properties.

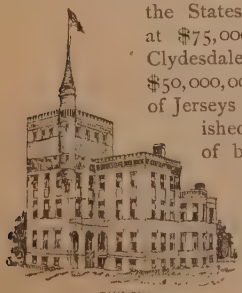
CHICAGO: UNION LEAGUE.

Illinois lies within the great American corn-belt, and holds the first rank among the States as a producer of corn. It has reached 325,000,000 bushels, and in the ten years, 1874–83, it averaged 227,000,000 bushels, with a yearly value of nearly $70,000,000 (30 bushels an acre, at 31 cents). The corn country lies north of the wheat belt, which begins south of Springfield, and extends southeast to the Wabash. Between 1870 and 1883 the wheat-crop averaged 30,000,000 bushels. Since

KANKAKEE: EASTERN HOSPITAL FOR THE INSANE.

1880 the market price for wheat has been so low that many farmers raised it at a loss, and have now abandoned the crop. The products of oats has exceeded 100,000,000 bushels in a year. Rye, barley, buckwheat, potatoes and hay are raised in enormous quantities. Among the other yearly products of this great garden of the West are 500,000 pounds of grass seed, 1,500,000 pounds of flaxseed, 11,000,000 pounds of broom-corn, 1,300,000 gallons of sorghum syrup, $3,500,000 worth of eggs and poultry, 800,000 pounds of honey, and 100,000 pounds of beeswax. The Prairie State abounds in rich fruits, and has 300,000 acres of orchards and vineyards. Besides the famous products of the Alton peach-country, and the car-loads of strawberries sent from Cobden and Centralia, the apples of Illinois have reached 600,000 bushels in a year, and raspberries and blackberries, cherries and plums grow in vast quantities. Over 3,000,000 pounds of grapes and 300,000 gallons of wine have come from the vineyards in a single year.

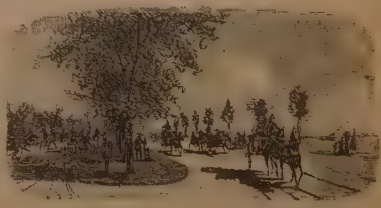
Some part of the superabundant grain and the immense product of hay in the northern counties is devoted to the fattening of great flocks and herds. Illinois stands first among the States in horses, of which it possesses more than 1,000,000, valued at $75,000,000, and including many thoroughbreds, and Norman and Clydesdale draught-horses. The cattle number 2,500,000, valued at over $50,000,000. Of these, 700,000 are milch-cows, including great numbers of Jerseys and Holsteins. Although 100,000,000 gallons of milk are furnished to the cities yearly, enough remains to make 25,000,000 pounds of butter and 7,000,000 pounds of cheese. The State has over 2,000,000 hogs. The hog-cholera has carried off nearly 500,000 head in a single year, but still the business advances, the herds including thousands of Berkshires, Poland-Chinas, and Chester Whites. At one time Illinois had 2,000,000 sheep, but the ravages of dogs and the rise of shepherding farther west have caused the flocks to fall off to 600,000. The wool-clip has reached 6,000,000 pounds in a year.



QUINCY: SAILORS' AND SOLDIERS' HOME.

The Mineral Product is of large and increasing value. The coal-fields underlie three fourths of Illinois, producing excellent bituminous, block and cannel coal, from six irregular workable beds. There are 1,100 mines, in 45 counties, employing 24,000 miners, and producing 12,000,000 tons a year. Most of these are in Sangamon, Macoupin and La-Salle Counties, and in the Belleville district, where the seam is six feet thick. It is obtained with great ease, being near the surface; and its wide distribution, with ready transportation over the network of prairie railroads and along the contiguous rivers, makes it of high economic value in this region of many factories. Much of it is pure enough to use without coking, for smelting iron-ores, in the Iron-Mountain district of Missouri and the mineral country of Michigan. Some iron-ores are found and worked; and in the north lie extensive beds of peat. Copper occurs along the Pecatonica, in small quantities.

The Galena lead-mines have been in operation for eighty years, and scar the rough and desolate hill-country for leagues. This industry culminated in 1845, when 20,000 tons were shipped. The competition of the lead-mines of the Rocky Mountains has reduced the output. Zinc is found with the lead, in paying quantities, with furnaces at Peru and La Salle. There are



CHICAGO: LINCOLN PARK.

salt-wells in the south, yielding twelve ounces of salt to each gallon of water. The Niagara limestone of Lemont and Joliet is a fine-grained, light-drab stone, composed of the rounded grains of shells. It is easily worked, and the product of the quarries goes to all the interior States. There are 40 limestone quarries, employing 2,200 men. The sandstones of the upper Illinois valley are used in glass-works. Variegated marble is produced; and potter's-clay and mineral-paint abound in the south. The sulphur and iron springs of Jefferson County have a local repute; and there are medicinal waters near Ottawa and Peru.

ELGIN: NORTHERN HOSPITAL FOR THE INSANE.

Government.— The governor and several executive officers are elected every four years. The State includes 51 districts, each of which sends a senator and three representatives to the General Assembly. The Supreme Court has seven justices, and there are appellate, circuit, and county courts. The Constitution of 1870 replaced that of 1848, and is a State paper of remarkable perspicuity and wisdom.

The population in 1850 included 26,000 New-Englanders, 112,000 from the Middle States, 112,300 from the South, 107,000 from other Western States, 52,000 from Great Britain and Ireland, 39,000 from Germany, and 344,000 natives of Illinois. In 1880 Illinois had 60,000 New-Englanders, 224,000 from the Middle States, 150,000 Southerners, and 1,700,000 natives. In all this great inland empire, virtue, mercy and peace dwell, and the blessings of religion and education are diffused. Industry is stimulated by ownership, to a larger extent than in other communities; and the people live in great comfort and content. Of the people of Illinois nearly two fifths are at school, one fourth in farming, one sixth in manufacturing, and nearly one sixth in trade and transportation.

LINCOLN: STATE ASYLUM FOR FEEBLE-MINDED CHILDREN.

Charities and Corrections are represented by thirteen State institutions. The Penitentiary at Joliet has 1,340 prisoners; and the Penitentiary at Chester has 670. The Northern, Southern, Eastern and Central Hospitals for the Insane, at Elgin (520 inmates), Anna (630), Kankakee (1,600), and Jacksonville (900), occupy buildings and grounds that have cost above $5,000,000. The Kankakee Asylum is one of the largest establishments on the detached-ward or village system. The Institution for the Deaf and Dumb, founded at Jacksonville in 1839, has 530 pupils. A similar Institution for the Blind, near the same city, has 150 students. The Asylum for Feeble-Minded Children, at Lincoln, has 370 inmates, with industrial training, and a farm of 400 acres.

The Illinois National Guard is limited by law to 4,000 officers and enlisted men, organized into two brigades. The First Brigade (headquarters at Chicago) comprises the First and Second Infantry, at Chicago; the Third Infantry, with headquarters at Rockford; the Fourth Infantry, with headquarters at Joliet; and Battery D, at Chicago. The Second Brigade, with headquarters at Springfield, contains the Fifth

JACKSONVILLE: THE STATE BLIND ASYLUM.

Infantry, with headquarters at Springfield; the Sixth Infantry (Moline); the Eighth Infantry (Greenup); and Battery A, at Danville. The infantry is equipped with the same arms as the United-States Army, and the uniform is identical with that worn in the same service. Camp Lincoln, near Springfield, is the State Camp of Instruction; and the troops are often stationed there for tours of military duty. Camp Lincoln is one mile long, and has one of the best rifle-ranges in the country. While the guard is in camp especial attention is given to instruction in rifle-firing, skirmish drill and guard duties. The batteries are equipped with four cannon each, and Gatling guns. The State troops have frequently rendered valuable service, in support of the civil authorities, in times of riots and strikes.

EVANSTON: NORTHWESTERN UNIVERSITY.

The first post of the Grand Army of the Republic was mustered in, April 6, 1866, at Decatur, by Major B. F. Stephenson, and numbered twelve comrades. Now that this great military fraternity includes 7,000 posts and 400,000 comrades, the silver anniversary of the order (1891) is to be commemorated by the dedication, at Decatur, of a National Memorial Hall, as a storehouse of records and mementoes and curiosities, a temple of patriotism and a school of loyalty. The Soldiers' and Sailors' Home has 900 inmates, in pretty cottages, where squads of 50 dwell and have their meals furnished, the entire body uniting only at church. The headquarters, cottages, hospital, kitchen and dairy occupy spacious ornamental grounds, near Quincy. The Soldiers' Orphans' Home, at Normal, has 350 inmates.

URBANA: UNIVERSITY OF ILLINOIS.

National Institutions. — The Rock-Island Arsenal is the most completely appointed of American arsenals, having also an armory, powder-works, and foundry. Here Gen. Rodman perfected his great inventions of cooling cannon-castings from the inside, and prism or perforated-cake powder for heavy guns. The buildings are of stone, and include the soldiers' barracks, rolling and forging mills, magazines, and great shops for making ordnance stores. When in full operation, the Arsenal can arm, equip and supply 750,000 troops. It is traversed by railways, and connected with Moline, Rock Island and Davenport by bridges across the Mississippi. Rock Island covers 970 acres. It was acquired by Gen. Harrison from the Sac and Fox Indians, by a treaty made at St. Louis, in 1804; and in 1816 the Eighth United-States Infantry erected Fort Armstrong, which was garrisoned for 20 years. In 1863 Congress established here the chief Arsenal for the Mississippi Valley, which Gen. T. J. Rodman commanded from 1865 to 1871.

In 1888 the Government began the construction of Fort Sheridan, a ten-company fort, at Highwood, north of Chicago. The National Cemetery, at Mound City, has the graves of 5,226 soldiers of the war for the Union.

Education is served by permanent productive school-funds exceeding $10,000,000, drawn from Government land-grants, and the surplus revenue distributed in 1837. The receipts for schools exceed $11,000,000 yearly. The public-school and State educational property is valued at $27,000,000. Illinois has 1,200,000 persons of school age, of whom 760,000 are enrolled in the public schools, with an average daily attendance of 518,043. There are 12,000 school-districts, with 24,000

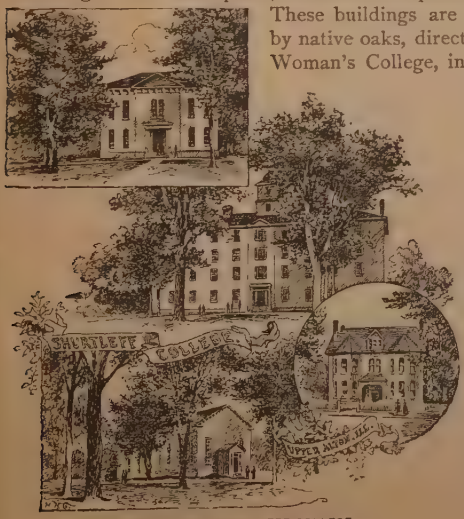
CHICAGO: WESTERN THEOLOGICAL SEMINARY.

teachers, and 160,000 books in the libraries. In private schools 100,000 students are enrolled. The Illinois State Normal University, founded at Normal, near Bloomington, in 1857, has 16 instructors and 720 students. The Southern Normal University, at Carbondale, has 16 instructors and 450 pupils, mostly from the southern counties. The Cook-County Normal School is at Normal Park; and there is a Manual Training School at Chicago, with 220 students.

ROCKFORD : ROCKFORD SEMINARY.

Illinois has 24 colleges and universities, with 270 instructors and 2,000 students, besides 2,200 in their preparatory departments. The University of Illinois, opened at Urbana in 1868, has 35 instructors and 350 students (50 women), besides 125 preparatory and special pupils. It includes colleges of agriculture; engineering (mechanical, civil and mining, and architecture); natural science; and ancient and modern languages; and schools of military science, and of art and design. The University has a beautiful location on 610 acres of high rolling prairie. It received the Congressional land-grant of 480,000 acres, in 1862, besides liberal State appropriations. This institution was the outgrowth of a movement for the higher education of the industrial classes, and has one honorary scholarship for each county, besides farmers' and builders' short courses. It makes prominent instruction in branches of learning relating to agriculture and the mechanic arts.

Northwestern University, an institution of large and growing endowment, organized by the Methodists in 1855, is situated at Evanston, twelve miles from Chicago. The College of Liberal Arts has 250 students; the Conservatory of Music, 190; the School of Art, 20; the Preparatory School, 600. Of the professional schools, in Chicago, the College of Medicine has 210 students; Law, 140; Pharmacy, 200; and Dental and Oral Surgery, 25. University Hall is a handsome stone building, containing recitation-rooms, chapel, museum, and library (25,000 volumes). The Hall of Science provides laboratories and lecture-rooms, admirably constructed and equipped. The new Dearborn Observatory, lately completed, according to the best plans, contains an equatorial refracting telescope of great power. These buildings are situated in a beautiful campus, shaded by native oaks, directly on the shore of Lake Michigan. The Woman's College, in separate grounds, and the College Cottage, are homes for women students. The Garrett Biblical Institute, founded in 1856 as a theological school, has 170 students. Its buildings, the elegant Memorial Hall, and Heck Hall, are in the University grounds, but the institution is under separate organization. Also in Evanston, and affiliated with the Institute, are the Norwegian-Danish, and the Swedish theological schools.

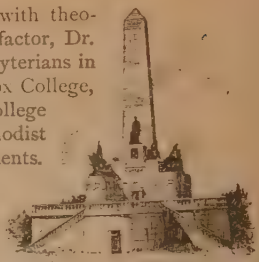


UPPER ALTON: SHURTLEFF COLLEGE.

The new Chicago University was endowed by J. D. Rockefeller, in 1889, with $600,000, and in 1890 with $1,000,000 more, to which Marshall Field added a gift of land. This institution hopes to rival the ancient universities of the East, in equipment and learning.

Shurtleff College, at Upper Alton, was founded in 1832, as a seminary,

largely to educate Baptist clergymen. It is co-educational, with theological and scientific schools. It was named for its chief benefactor, Dr. N. B. Shurtleff, of Boston. Illinois College, founded by Presbyterians in 1830, occupies a pleasant ridge overlooking Jacksonville. Knox College, founded at Galesburg in 1841, has 174 students. Wheaton College dates from 1855. The Illinois Wesleyan University is a Methodist institution, founded at Bloomington in 1850, and with 196 students. Lombard University, at Galesburg, pertains to the Universalists. Lake-Forest University is a successful Presbyterian school, with 100 students. Among the Methodist schools are Hedding College, at Abingdon, with 78 students; Chaddock College, at Quincy; and the German-English College, at Galena. The chief Catholic colleges are St. Ignatius (Jesuit), at Chicago; St. Francis Solanus (Franciscan), at Quincy; St. Viateur's, at Bourbonnais Grove; and St. Joseph's (Franciscan), at Teutopolis. These have nearly 500 collegiate students. The chief higher schools for women are at Jacksonville, opened in 1830; Rockford, 1849; Mount Carroll, 1853; Knoxville, 1868; and Lake Forest, 1869.



SPRINGFIELD: LINCOLN MONUMENT AND TOMB.

The Union Baptist Theological Seminary at Morgan Park, twelve miles south of Chicago, has 133 students. There are 20 in its Dano-Norwegian, and 19 in its Swedish department. The library contains 20,000 volumes. The McCormick Theological Seminary, opened in 1859 at Chicago, has eleven instructors, and 100 Presbyterian divinity students. The Chicago Theological Seminary (Congregationalist), opened in 1858, has several good buildings facing Union Park, with nine instructors, 65 students and 350 graduates. Augustana College and Theological Seminary occupies a beautiful site near Rock Island, and is controlled by the Swedish Lutheran Augustana Synod of the United States. Wartburg Seminary at Mendota is also Lutheran. Eureka College's Bible department has three teachers and 30 students. The Union Biblical Institution of the Evangelical Association is at Naperville. Methodist theological schools are conducted at the German English College, at Galena, and McKendree College; and Wheaton Theological Seminary was founded in 1881, by the Methodist Protestants. Lombard University, has a small Universalist theological school. The divinity schools of Illinois are among the most important in America.

EVANSTON: DEARBORN OBSERVATORY.

The Bible Institute for missions has several buildings at Chicago, and 320 men and women students. The Bible is the only text-book, in its practical application to soul-saving and the Christian life; and the students are brought into face-to-face contact with the masses, in house-visiting and mission work. There is also a department for musical training, as an adjunct to religious work. Dwight L. Moody, the evangelist, is the head of this unique institution.

Libraries.—The Chicago Public Library has grown since 1874 to 150,000 volumes. The great Newberry Library, endowed with $2,500,000, is to occupy the Ogden Block, at Chicago. It already has above 40,000 volumes, in American local history, biography, astronomy, music and sociology, and is under the care of Wm. F. Poole. This library is intended solely for reference. The Crerar Library, endowed by John Crerar with $2,225,000, will be in the South Division of Chicago, if his will is not broken by the contestants.

CHICAGO; ZION TEMPLE.

Art.—The Art Institute of Chicago has large collections and loan collections of paintings and art-objects, and a flourishing school of art. Among the artistic memorials of Illinois are St. Gaudens's noble statue of Lincoln, Count Lelaing's statue

of La Salle, the Drexel monument, and the tall column crowned with the statue of Douglas, all at Chicago, ; the statue of Grant, at Galena ; and the great monument over the remains of Abraham Lincoln, at Springfield. The Rebisso equestrian statue of Gen. Grant is being prepared for Lincoln Park, Chicago ; and Partridge's statue of Shakespeare will be placed in the same public ground. Other monumental works adorn several Illinois cities.

CHICAGO : THE CHICAGO TRIBUNE.

Newspapers began here with the *Illinois Sun*, published at Kaskaskia, about 1814, and followed by the Illinois *Emigrant*, at Shawneetown, in 1818, and *The Spectator*, at Edwardsville, in 1819. The Chicago *Tribune*, founded in 1847, has risen to a commanding position among American newspapers. In 1853 Joseph Medill bought a large interest in the paper ; and four years later it absorbed the *Democratic Press*, whose publishers, Wm. Bross and J. L. Scripps, entered the *Tribune* company, together with Alfred Cowles, Dr. C. L. Ray, and Horace White (now of the New-York *Evening Post*). The "fire-proof" *Tribune* building was burned in the great fire of 1871 ; and a year later the present structure rose on the same site, at its time one of the best newspaper buildings in this country. A few years prior and subsequent to the fire, Horace White had editorial control, and steered the *Tribune* through the Greeley campaign (Mr. Medill having retired, and being Mayor during a part of the time), but with such results, that in 1874 he relinquished the control into the hands of Mr. Medill, where it has since remained. Under his judicious management, aided by a large and competent corps of employees, it has risen to its present commanding position, not only as a news-gatherer and political organ, but as one of the largest advertising mediums in the United States. It has always been a judicious and conservative champion of the Republican party ; has opposed the follies of fiatism, prohibition and Tammany rule in cities ; secured the passage of the admirable Illinois high-license law ; and strenuously opposed ultra tariff taxation.

The German-Americans of the Northwest have a noble representative newspaper in the *Illinois Staats-Zeitung*, which was founded in 1847, by Robert Hoeffger, who alone solicited all the advertisements and subscriptions, set the type, ran the press, and then went out and distributed the edition of 200 copies to the subscribers. In 1851 the daily edition began, with 70 subscribers. The combined circulation of all the editions is now 97,000 copies ; and the *Staats-Zeitung* Building, owned and occupied by the paper, at Chicago, cost, with its equipment, over $300,000. The *Illinois Staats-Zeitung* was the first German paper to discover Republican principles in the Buffalo Platform of 1848 ; and afterwards it antagonized the Nebraska Bill, and led the Germans into the Republican party, fighting hard for Fremont, and then for Lincoln. Latterly it has been a power also in municipal, county and State politics. There is but one German-American paper with greater wealth and circulation, and none surpasses it in ability, influence and popularity with myriads of German readers all over the United States.

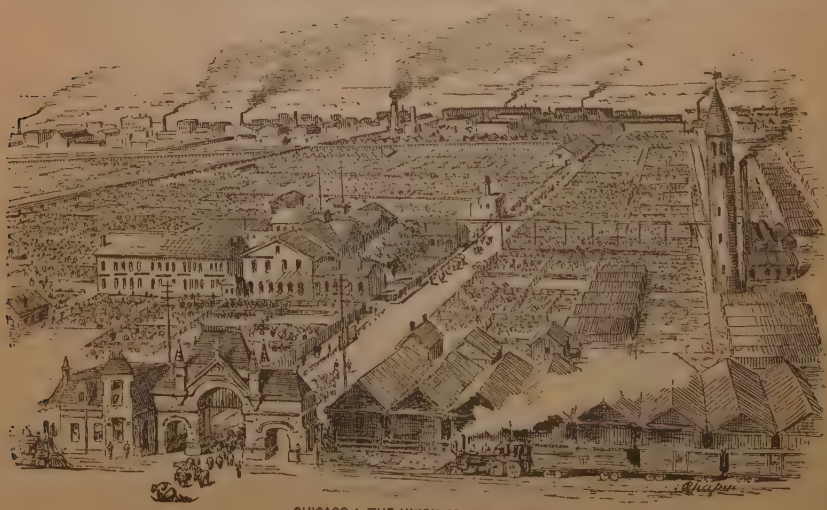
CHICAGO : ILLINOIS STAATS-ZEITUNG.

Many millions of Americans get their knowledge of events of the day from "patent insides," or ready-printed sheets furnished to country newspapers. This plan of auxiliary sheets was first developed, in America, by Ansel N. Kellogg, publisher of the Baraboo (Wis.) *Republic*, in 1861, when his printers had gone to the war, and left him under the necessity of having his paper printed at the Madison *Journal* office. Four years later he

CHICAGO: A. N. KELLOGG NEWSPAPER CO.

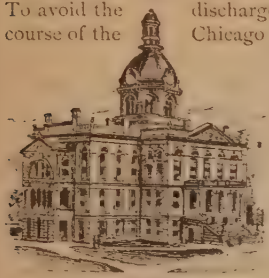
went to Chicago, and founded the business of supplying "patent insides" for rural papers, with the freshest news and the best selected and most interesting miscellany. He began with eight papers, and the company now supplies over 2,000, and issues more than 100 different editions weekly, edited with conspicuous ability, by a large force of experienced journalists. The A. N. Kellogg Newspaper Company has eight offices for supplying its patrons: Chicago, with 400 newspapers; St. Louis, with 400; Cleveland, 200; Kansas City, 267; Cincinnati, 230; Memphis, 200; St. Paul, 150; and Wichita, 100. Out of this enterprise has grown an immense advertising business, in which reputable advertising of the largest and shrewdest American houses is displayed on the auxiliary sheets of these groups of country and shire-town weeklies, with amazingly profitable results.

Chief Cities.—Chicago is a typical Western and American city, the largest west of the Alleghany Mountains, and the second in size in the New World. About the year 1850 this outgrowth of an Indian trading-post and a frontier garrison began to challenge attention, and in the ensuing decade its population rose from 30,000 to 112,172. The new metropolis commanded the unrivalled inland navigation of the great lakes, and her complex systems of railways reached out into all parts of the rising West. The advanced position thus early seized has been held by the wide-awake citizens. *Checagua*, the Indian name of this locality, is said by some to mean "wild onion," by others to mean "strong." Possibly either is correct. The first settler was a negro, Jean Baptiste Point au Sable, in 1790. Three years later he departed, and Le Mai, a Frenchman, came, selling out, in turn, to John Kinzie, of the American Fur Co., the first permanent settler. October 9 and 10, 1871, Chicago was nearly destroyed by a great fire, which consumed $200,000,000 worth of property, and left 100,000 people homeless. The Chicago River is a bayou running westward from Lake Michigan for five eighths of a mile, and then forking into the North and South Branches, nearly parallel with the lake. The South Side, between the river, the South Branch and the lake, contains the wholesale business, banks, exchanges, hotels and



CHICAGO: THE UNION STOCK-YARDS.

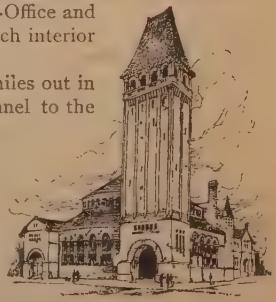
chief public buildings, with a fine residence-quarter beyond. There is also a pleasant region of homes on the North Side. The site of Chicago was a flat swamp along a bayou, and in order to secure proper drainage the city was raised ten or twelve feet, at enormous cost. To avoid the discharge of the sewage into the lake, the city artificially reversed the course of the Chicago River, so that it now empties into the Illinois River. The grain-trade employs thirty immense grain-elevators and store-houses, handling 140,000,000 bushels yearly. Since 1870 over 2,500,000,000 bushels have been received here.


PEORIA : COURT-HOUSE.

The Union Stock-Yards are the largest in the world. They were opened in 1865, and cost $3,000,000. They cover 350 acres (three fifths roofed over) with eight miles of streets; and receive over 8,000,000 head of live-stock yearly. More than $200,000,000 worth of live-stock is sold here yearly. Near by are enormous meat-packing houses, with modern appliances of wonderful ingenuity. The meats shipped from Chicago yearly exceed $100,000,000 in value, being almost one third of the entire export. Goods are imported in bond from Europe to Chicago to the amount of $4,000,000 worth yearly. The exports are vastly greater, and consist mainly of wheat and meat.

Chicago has a number of grand public buildings. The Court House and City Hall is a noble pile of French Renaissance architecture, of Athens marble and Indiana granite, with statuary, erected at a cost of $4,000,000. The Post-Office and Custom House is in the Venetian Romanesque style, with rich interior decorations of marble. It cost $6,000,000.

The water supply of Chicago is taken from a crib two miles out in Lake Michigan, whence it passes through a submarine tunnel to the shore, and is pumped into a standpipe 175 feet high. The works cost $3,000,000, and furnish 150,000,000 gallons daily, yielding a considerable revenue to the city above expenses. A new ten-foot tunnel leads four miles out, to a crib now under construction. One of the mechanical wonders of Chicago is the great gas-holder, built by R. D. Wood & Co. of Philadelphia for the Chicago Gas-Light & Coke Co., 182 feet in diameter and 127⅔ feet high, with a capacity of 3,100,000 cubic feet. It has three telescopic lifts.

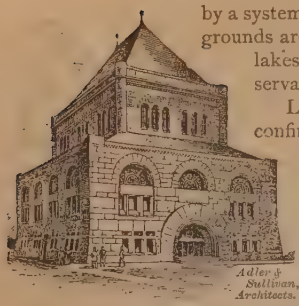

CHICAGO : CHURCH OF THE COVENANT.

Chicago manufactures are of great extent and variety, $7,000,000 being invested in making agricultural implements, with an annual product of $16,000,000; and $3,000,000 in carriage-making, with a product of $5,000,000. The yearly product of furniture is $6,500,000; of clothing, $8,000,000; of leather, $6,500,000; of iron and steel, $20,000,000; of planed lumber, $15,500,000; of printing, $8,000,000; of malt liquors, $6,500,000; of distilled liquors, $8,500,000; of soap, $3,000,000; of tobacco and cigars, $5,000,000; of cut stone, $5,000,000; of chemicals, $3,000,000; besides large quantities of flour and its products, sheet metal, brass, hats and furs, and confectionery.

CHICAGO; FIRST REGIMENT ARMORY.

Chicago is not merely a large region covered with houses and factories. It has a noble (though recent) development in culture and letters, with libraries of the first magnitude, educational institutions of far-reaching importance, and rich musical and artistic developments. The parks have cost $10,000,000, and almost surround the city with a belt of verdure, Lincoln Park (310 acres) on the north being united to Humboldt (194 acres), Garfield (185 acres) and Douglas Parks (171 acres) on the west, and these to the great South-Side Parks (165 acres)

by a system of noble boulevards and parkways. These broad pleasure-grounds are adorned with many acres of rich flowers, verdant lawns, lakes, bits of forests, shore drives, zoölogical gardens, and conservatories.

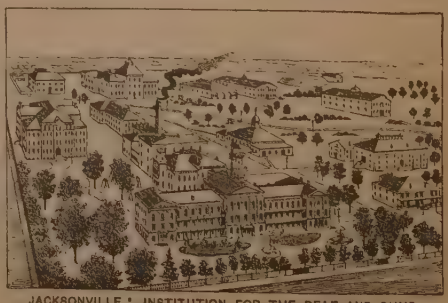


CHICAGO: SYNAGOGUE ANSHE MAARIV.

Libby Prison, in which many thousand Union officers were confined during the Secession War, was bought at Richmond, in 1888, taken down, and carried to Chicago, where its carefully numbered beams and stones were put together again, and now these horrid walls enshrine a museum of war relics. The Central Music Hall and the German Opera House, the Standard Club, and the impressive synagogue of the Congregation Anshe Maariv, and other ornaments of the city were constructed by Adler & Sullivan, the able architects of the Auditorium.

The Anglo-American race is a family of born travellers, and its members are never more happy than when traversing vast distances, in search of variety in climate, or scenery, or trade. They also demand the utmost possible amount of comfort while on their wanderings; and the ingenuity of their brightest minds has been directed toward mitigating the arduous features of travel. The first large westward migration in America was that of the three Puritan churches, from Boston to Hartford, and all this godly company, even to women and children, walked the whole way, through the pathless woods. Somewhat over 200 years later, the vast migrations of Americans to Pike's Peak and California were largely conducted by the slowly crawling wagon-trains, requiring weary months to cross the Plains. But now the luxurious traveller crosses the wide continent in five or six days, eating delicious meals at regular hours, sleeping in a good bed at night, and throughout the long day watching the flying landscape through plate-glass windows, and reclining in a richly upholstered easy-chair. Bathing, shaving, reading, writing and eating are provided for in the cars of to-day. A large part of the honor for this achievement belongs to George M. Pullman, whose inventions and devices have been successfully applied to make travelling a pleasure instead of a pain. The sovereign excellence of his improved cars is shown by the fact that they are now in use on above 70,000 miles of railways, in America and Europe, crossing the Alps and the Carpathians as well as the Alleghanies and the Rockies, and traversing Great Britain in every direction. These commodious and luxurious vehicles are a development, pure and simple, and no one could realize how many small elements enter into their *tout ensemble* of comfort, each one carefully thought out and elaborated, and fitted to its place. Almost every year adds some new and desirable improvement, and the Pullman car of the twentieth century will be the acme of all imaginable security and luxury. A fundamental principle with Mr. Pullman made his work a success, and the same principle gives to his corporation an assured permanency — it is to supply the public to the highest extent that they will pay for, always leading the people somewhat beyond their demands.

Pullman's Palace Car Company was founded in 1867, with a paid-up capital of $1,000,000. The healthy and steady increase in the business has necessitated successive increases in the capital stock, until it now amounts to $20,000,000, all paid in, dollar for dollar, without a thought of watering. These extended operations have been conducted on the strictest business principles, always paying dividends.


JACKSONVILLE: INSTITUTION FOR THE DEAF AND DUMB.

PULLMAN: THE ARCADE AND PUBLIC SQUARE, AND THE PULLMAN CAR SHOPS.

In 1880 Mr. Pullman founded the city of Pullman, on the shore of Lake Calumet, twelve miles south of Chicago, having acquired 3,500 acres of land here, on the open prairie. Here he transferred the greater part of the company's works, where the operatives could have the benefits of pure air and water, generous liberty, and deliverance from the seductions of a great city. Over $600,000 was spent underground, on a scientific drainage and sewage system, before a house was erected; and then the best landscape-gardeners, civil engineers, and architects laid out and built the city, with wide and parked streets, handsome public buildings, parks and theatre and churches, convenient and picturesque buildings, and model factories. The greater part of the town is owned by the company, and the workmen are tenants, but for an equal sum get far better homes than elsewhere, while the corporation also receives a remunerative interest on its investment. The operatives, however, can buy their homes, and are not at all compelled to live on the Pullman Company property. In fact, about 2,000 do not, and many of these own their places. Pullman is fast becoming an ideal industrial community, unapproached to-day by any city of its size in America. It has a large diversity of manufactures, and its churches, schools, public buildings, and homes, are of a high order. It is one of the places in this country to which foreign visitors are always attracted.

One of the high culminating points of American civilization is shown in the wonderful Auditorium Building, in Chicago, which was erected in 1887–90, at a cost of $3,500,000. This enormous structure fronts on three of the chief streets, presenting impressive and commanding façades of Romanesque architecture, abounding in strong round arches. It is as nearly fire-proof as a structure can be made, being built of granite and limestone, iron and steel, with impenetrable walls, and nothing inflammable except the furniture. This greatest private building enterprise ever undertaken in America has been entitled "the Parthenon of modern civilization," as the richest type of the age of business and commercial activity and individual comfort. The Auditorium was conceived and developed by Ferdinand W. Peck, a wealthy citizen of Chicago,

CHICAGO: PULLMAN BUILDING.

and prominent in many enterprises, who recognized the need in the city of a grand building for political, musical, military and other conventions and reunions, to serve the metropolitan aspirations of the Lake City, and to promote fraternity among the people of the Republic. The architects were Adler & Sullivan, with Prof. Wm. R. Ware as adviser, and Gen. Wm. Sooy Smith as consulting engineer. The Auditorium Association includes several hundred leading citizens of Chicago, who have taken stock in this national and patriotic enterprise. Among the component parts of the Auditorium Building are the Business Portion, including handsome stores and 136 offices; the Tower Observatory, 270 feet high, and occupied by the United-States Signal Service on its 17th, 18th, and 19th stories; the Recital Hall, in cream and gold, seating 500 persons; and the Auditorium, the largest and most sumptuous theatre and opera-house in the world, with the most complete and costly stage, and an organ of unusual power and sweetness, and a seating capacity of 4,100, which can be enlarged to 8,000 in time of conventions.

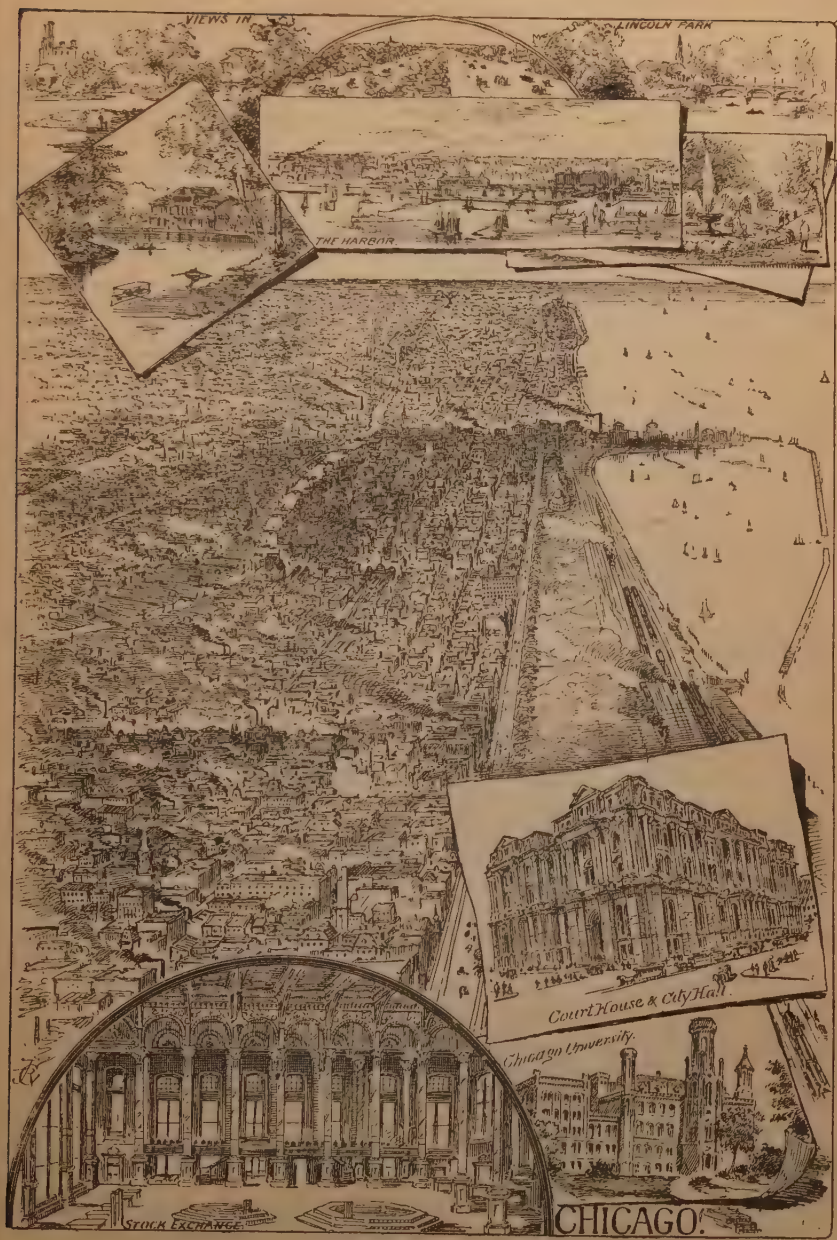
CHICAGO: THE AUDITORIUM.

The Auditorium Hotel is a part of this mighty pile, and includes 400 guest-rooms, with a grand dining-room and kitchen on the tenth floor, and a banquet-hall built of steel, on trusses over the theatre. Every luxury of modern civilization finds a home in this unrivalled public house, which is at all points fire-proof. The Auditorium Tower has become one of the notable sights of Chicago, and few visitors to the city fail to go to its summit, for there can be obtained views so grand as always to be remembered. Both the architectural and decorative features of this unrivalled edifice are entirely original in their treatment, and mark a new era in the history of construction. It is generally admitted that the Auditorium proper, or the great hall, surpasses all the opera-houses of both Europe and this country in beauty of decoration and finish, as well as in capacity. This architectural pride of the Great West occupies a charming site overlooking Lake Michigan and its commercial fleets, while close around it surge the life and activity of Chicago.

The broad and shady streets of Springfield, "The Flower City," intersect each other on a pleasant prairie, in a rich farming and coal-mining country near the Sangamon River. Springfield has been the capital of Illinois since 1837. Two miles north, in Oak-Ridge Cemetery, is the great Lincoln Monument, over the remains of Abraham Lincoln. Peoria, beautifully situated on Peoria Lake, has costly public buildings, several large elevators, shipping 30,000,000 bushels of corn and oats yearly, and important manufactures. Quincy is a beautiful city, on a bold limestone bluff above the Mississippi, founded in 1822 on the site of an ancient Sac town, and endowed with noble new public buildings, and large industries in flour-milling, meat-packing, stove and wagon making, and the construction of machinery. Rock Island and Moline are contiguous manufacturing cities, on the Mississippi, which here falls seven feet in three miles, affording an immense water-power. Cairo, on the low bottoms at the confluence of the Ohio and Mississippi, has never reached the commercial prominence foreshadowed by its position, and is only kept from inundation by a four-mile circuit of levees. Aurora, a promising factory and railroad centre, was the first city in the world to light its streets with electricity (in 1881), and opened the first free public-schools in the State of Illinois, many years ago.

CHICAGO: AUDITORIUM HOTEL, DINING HALL.

CHICAGO: AUDITORIUM HOTEL, STAIRCASE.



CHICAGO: THE WESTERN SHORE OF LAKE MICHIGAN.

Bloomington is an educational city, with large car-works and foundries. Alton stands on high broken ground fronting the Mississippi, three miles above the inflowing of the Missouri, and has valuable factories. Galena, perched upon the steep Fevre bluffs, dates from 1826, and is the capital of the lead-mining country. Joliet, forty miles southwest of Chicago, was founded in 1834, and has factories and quarries, the Joliet branch of the Illinois Steel Co., and the State Penitentiary. East St. Louis, practically a part of St. Louis (Mo.), is a growing city, with many industries.

ROCK ISLAND, ON THE MISSISSIPPI RIVER.

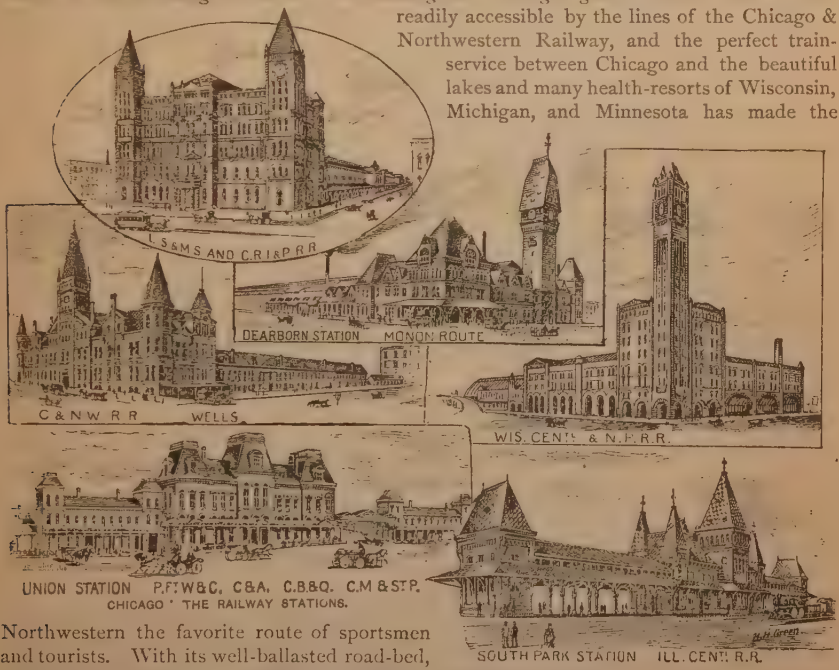
Railways in Illinois have over 13,000 miles of track, built at a cost of $330,000,000, and carrying yearly 32,000,000 passengers, and 54,000,000 tons of freight. The earnings from freight are four times those from passengers. Their taxes in Illinois amount to nearly $3,000,000. There are but three counties (Pope, Hardin and Calhoun) that are not reached by railways. The pioneer Illinois line (in what was until lately the Wabash, St.-Louis & Pacific system) was opened from Springfield to Meredosia in 1838, but mules soon supplanted the locomotives, and the line fell into disuse. When the Galena & Chicago Union Railroad was begun, in 1847, its projectors got an authorization to build a turnpike instead, in case of need. By the end of 1848, the tracks had only reached Harlem, ten miles out, and a year later they got to Elgin. Congress granted to Illinois, in 1850, alternate sections of land along the routes from Galena and from Chicago to Cairo, to aid in building a railway; and the State transferred this domain to the Illinois Central Railroad Co., which rapidly built the line. It contracted to pay the State yearly seven per cent. of its gross earnings, for lands, etc., and Illinois has received over $10,000,000 from this source. The Illinois Central runs north from Cairo to near Centralia, whence one of its lines traverses the middle of the State north by Decatur and Bloomington to Mendota, and thence northwest to Galena and East Dubuque; and another line passes more to the eastward to Chicago. There are 500 miles of leased branch roads, making the total mileage 1,479. The company has 8,500 employees, receiving $5,000,000 a year.

CHICAGO: FORT DEARBORN.

The history of the Chicago & Northwestern Railway system furnishes a striking illustration of the rapid growth of the railway interests of the United States. From the Galena & Chicago Union Railway, consisting of 42 miles in 1848, has grown one of the most extensive and prosperous systems in the world. From the date mentioned, year by year its lines have been extended, until at the present time the Chicago & Northwestern Railway system embraces over 7,200 miles of thoroughly equipped railway. Its

CAIRO: THE CONFLUENCE OF THE OHIO AND MISSISSIPPI RIVERS.

lines reach the great timber and mining regions of northern Michigan; St. Paul, Minneapolis and Duluth in Minnesota; across Wisconsin, Minnesota and South Dakota to Pierre; and through Illinois, Iowa and Nebraska into the famous Black Hills of Dakota and the oil-fields of central Wyoming. By a close traffic alliance with the Union Pacific system, superb vestibuled trains, composed of reclining chair-cars and palace sleeping and dining cars, are now run through between Chicago and Denver (Col.) and Portland (Oregon), traversing most of the principal cities of Iowa, Nebraska, Colorado, Utah, Idaho and Oregon. A palace sleeping-car is also run through between Chicago and San Francisco; and the journey between Lake Michigan and the Pacific Coast can now be made in the greatest comfort without change of cars. The hunting and fishing regions of the Northwest are readily accessible by the lines of the Chicago & Northwestern Railway, and the perfect train-service between Chicago and the beautiful lakes and many health-resorts of Wisconsin, Michigan, and Minnesota has made the



Northwestern the favorite route of sportsmen and tourists. With its well-ballasted road-bed, superior equipment and excellent train-service the Northwestern may justly claim to be a model railway in all that the term implies.

The Burlington Route, Chicago, Burlington & Quincy Railroad, is one of the largest and most perfect railroad systems in the world. It extends from Chicago, St. Louis and Peoria on the east to Denver, Cheyenne and the Black Hills on the west; reaching between these terminals the Missouri-River centers of Kansas City, St. Joseph, Atchison, Council Bluffs and Omaha; and serving many important centers of trade in Illinois, Iowa and Nebraska, such as Quincy, Burlington, Nebraska City and Lincoln. Its lines also extend from St. Louis on the south to St. Paul and Minneapolis on the north; and its main lines and branches, aggregating 7,000 miles, are to be found in ten Western States. They penetrate in every direction the great corn-belt of Nebraska, Colorado and Kansas, and serve the mining and manufacturing regions, and many well-established cities and towns in that territory and in Illinois, Wisconsin, Iowa, Missouri and Wyoming. Its geographical position, and its relation to connecting lines, make it a leading factor in the traffic of the

Northwest, West and Southwest. The system employs 25,000 men; and at its centers of traffic it maintains extensive and commodious facilities. In 1889 the Burlington Route carried into Chicago 2,552,218 head of live-stock and 36,059,372 bushels of grain; or 23½ per cent. of the live-stock, and 22 per cent. of the grain carried into that city. Its train service is unexcelled in time and equipment, and includes all modern appliances for the comfort of patrons. The Burlington's trains leave the great Union Depot, at Chicago, which is also used by the Fort-Wayne and Pan-handle Routes, the Chicago, Milwaukee & St.-Paul, and the Alton lines. Two hundred trains leave this station daily.

CHICAGO: STUDEBAKER BROS.

Of the eastward trunk lines from Chicago, the Michigan Central, with its connections, the New-York Central and the Boston & Albany, is pre-eminent. Its four daily fast through trains are unsurpassed, perfect in equipment and service, with palatial sleeping, parlor and dining cars, running through to Buffalo, New York and Boston, are operated with a trained care and vigilance that allow a high rate of speed with entire safety and comfort. The famous North Shore Limited, heated by steam and lighted by the Pintsch gas system, and supplied with every possible convenience and luxury, runs from New York to Chicago in twenty-five hours. This line, known as "The Niagara-Falls Route," from its being the only line running directly by and in full view of the great cataract (and stopping its day trains there five minutes for the convenience of its passengers), is admirably constructed, and laid with 80-pound steel rails. Its numerous branch lines traverse the great State of Michigan, running from Toledo, Detroit and Jackson through the Saginaw and Grand-River Valleys, to the Straits of Mackinaw and the principal cities of the State. Quick to adopt the new inventions of science and the results of experience, and to anticipate the demands of the travelling public, it keeps in line with the great railways of the world.

CHICAGO: POST-OFFICE AND CUSTOM HOUSE.

One of the foremost routes from Chicago to the South is the Louisville, New-Albany & Chicago Railroad, which runs from the great Illinois metropolis across the State of Indiana to Louisville and down into Kentucky, and also to Indianapolis, connecting for Cincinnati and beyond. This is a favorite avenue between the tremendous business activities of the Northwest and the restful atmosphere and climate of the semi-tropical Southeast, the fragrant pine-forests of Georgia and the orange-groves of Florida. The traveller lies down at eight o'clock, at Chicago, and awakens at 7.15 in the morning, at Louisville, 323 miles away, and well on his way to the land of winter sunshine and repose. This is the famous "Monon Route" (so-named from a city where its divisions intersect); whose various connecting lines cover the South with their ramifications. The freight business is exceptionally heavy at all times. The Louisville, New-Albany & Chicago Company underwent a radical change in the executive management in 1889, and now it is energetically becoming one of the pre-eminent roads of this country, and has been practically rebuilt. Within two years the line has been ballasted

CHICAGO; MONON BLOCK.

with rock and provided with 70-pound steel rails and new ties and new bridges. The executive offices are in the Monon Block, in Chicago. The President is Dr. Wm. L. Breyfogle, and the General Manager is Wm. F. Black.

CHICAGO: THE BOARD OF TRADE.

The Chicago, Milwaukee & St.-Paul Railway, with more than 5,000 miles of track in Iowa, Wisconsin, the Dakotas, Minnesota, and Missouri, and 316 miles in Illinois, runs from Chicago west to the Mississippi and north into Wisconsin. It owns 757 locomotives and 24,000 cars. The Chicago, Rock-Island & Pacific Railway, chartered in 1847, as the Rock-Island & La-Salle Railroad, was finished to Rock Island in 1854, and to Council Bluffs (500 miles) in 1869. It controls over 2,000 miles of track, one quarter of which is in Illinois, with 2,854 employees. The Chicago & Alton Railroad runs southwest from Chicago to Bloomington, Springfield, Alton and East St. Louis, 281 miles, with several branches, and reaches west to Kansas City. The Chicago, Santa-Fé & California Railway has 349 miles in Illinois, running from Chicago into Iowa and Missouri, and forming the eastern section of the Santa-Fé system, which reaches the Gulfs of Mexico and California and the Pacific Ocean. The St.-Louis & Indianapolis line has 385 miles in Illinois, running northeast from East St. Louis to Alton, Mattoon, and Paris and beyond, and forming part of the "Big Four Route." The Ohio & Mississippi line runs in 428 miles from East St. Louis to Vincennes. The great railroads from Chicago to the East have but little of their mileage in Illinois. The Pittsburgh, Fort-Wayne & Chicago has 15 miles (70 of track) out of its 468 miles here; the Lake-Shore & Michigan Southern, 14 out of 2,192; the Baltimore & Ohio, six; the Michigan Central, six; and other lines quickly pass into Indiana. Among the other important north and south lines are the Chicago & Eastern-Illinois, 265 miles in Illinois; Chicago & Ohio-River, 91; and Cairo, Vincennes & Chicago, 297. The Wabash Railroad Company's main line runs from Toledo (Ohio) by Decatur and Springfield, to Bluffs, Ill. (413 miles), with 171 miles in Illinois. There are also routes served by this company from Chicago to Altamont, 214 miles, and from Decatur to East St. Louis, 110 miles. The Mobile & Ohio, St.-Louis & Cairo, and Louisville & Nashville control important lines in southern Illinois. Besides its network of railways and navigable waters, Illinois has 75,000 miles of roads and turnpikes.

CHICAGO: THE CHICAGO RIVER.

The Illinois & Michigan Canal runs from Chicago 96 miles to La Salle, the head of navigation on the Illinois River. It cost $6,600,000. In 1876–80 Chicago deepened this canal, at a cost of $3,250,000, so that the Chicago River now flows out of Lake Michigan and down to the Illinois, carrying in part the sewage of the great city. As first planned, in 1836, it was intended for a ship-canal, and the United States granted the right of way, but the financial embarrassment of the State checked the work, and reduced its scale. At some future time this scheme may be realized.

CHICAGO: MASONIC TEMPLE.

The Finances of Illinois are on the securest of foundations, and the State has no bonded debt. The maximum rate of taxation is fixed by law, at a low figure, on the assessed valuation of property. The free outlays for local improvements, railroads and public buildings reached such great proportions that the Constitution of 1870 placed restrictions on the municipalities. In 1880 the counties, cities and towns owed over $52,000,000, one fourth of which is payable between 1890 and 1900. Most of the bonded debts draw interest at seven per cent., but they are being refunded at from four to six per cent. Municipalities cannot incur debts to exceed five per cent. of the value of their taxable property; and they must yearly pay part of their existing debts, with all accruing interest. Illinois has 183 National banks, with a combined capital of $30,000,000; 20 State banks; 450 private banking-houses; and three saving-banks.

CHICAGO: ART INSTITUTE.

The First National Bank of Chicago, one of the greatest financial institutions in the country, was founded in 1863, with a capital of $100,000. The great fire of 1871 partly destroyed its building, but the safes and vaults remained intact, and the bank passed safely through the ordeal. Its charter expired in 1882, and the surplus, or reserve, was then found to be $1,800,000. In the same year, the bank was newly organized, with a capital of $3,000,000. It has grown as steadily and remarkably as Chicago itself, and now has a surplus of $2,000,000, deposits of $25,000,000, and gross assets of over $30,000,000. The mercantile and manufacturing interests of Chicago have been most liberally encouraged, and to this bank must be conceded a fair share of credit for the city's up-building. Its vice-president, Lyman J. Gage, was at the head of the World's Fair Committee, and the officers and directors include a group of Chicago's most famous men. The First National occupies capacious and magnificent quarters on the main floor of its own substantial bank structure, at the corner of Monroe and Dearborn Streets. During the crisis of 1873 this bank did not suspend, but met all calls with cash, and maintained unimpaired its previous high standing and credit.

CHICAGO: FIRST NATIONAL BANK.

The Illinois Trust and Savings Bank, the leading financial institution of its class west of Ohio, occupies handsome offices in the Rookery Building, an architectural marvel among the office-buildings of Chicago. It has a capital stock of $1,000,000, with additional liability of stockholders to the extent of $1,000,000, and a surplus of $1,000,000, making a total amount of over $3,000,000 pledged for the security of its depositors. The deposits and other assets make a total of nearly $20,000,000. There are four departments: The Savings Department, receiving deposits from $1 to $5,000; the Banking Department, receiving deposits subject to check, buying and selling foreign and domestic exchange, issuing letters of credit, and acting as a lawful depository of court and trust funds; the Safety Deposit Department, with private safes and boxes kept in a great vault walled with chrome steel and iron, and thoroughly watched and guarded; and the Trust Department, acting as administrator, executor, guardian, conservator, assignee, and trustee of trust estates. John J. Mitchell is president. The stockholders are among the wealthiest and most prominent business men.

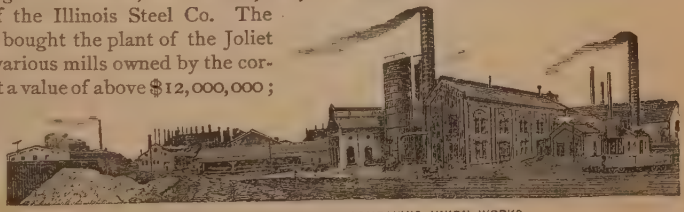
CHICAGO: THE ROOKERY: ILLINOIS TRUST AND SAVINGS BANK.

CHICAGO: B. & O. R. R. OFFICES.

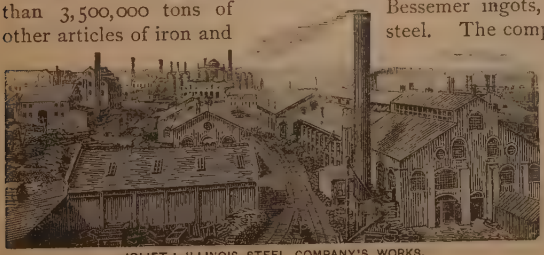
The Manufactories of Illinois exceed 16,000, with $150,000,000 capital, 150,000 operatives (receiving wages of $60,000,000 a year), and a yearly product of $450,000,000. Manufacturing employs nearly one fifth of the people of Illinois, which stands first among the States in meat-packing, the lumber-trade, and the making of malt and distilled liquors. The State is dotted all over with flouring-mills, whose product exceeds in value that of any other local industry. Among other yearly products are clothing and furnishing goods, to the value of $25,000,000; leather, $6,000,000; boots and shoes, $4,000,000; railway bridges and cars, $13,000,000; furniture, $10,000,000; sashes, doors and planed lumber, $12,000,000; carriages and wagons, $4,000,000; publishing and printing, $6,000,000; oil, paints and white lead, $5,000,000; lard oil, oleomargarine and stearine, $7,000,000; window and green glass, soap, and many other articles.

The Illinois Steel Company is the largest corporation of its kind in this or any other country, and possesses practically a monopoly of steel-rail manufacturing in the West. It has an authorized capital of $25,000,000, and a very extensive and profitable business, covering a score of great States. This industry was founded in 1857 by E. B. Ward, of Detroit, who sold his plant to the Chicago Rolling-Mills Co., in 1864. Five years later the North-Chicago Rolling Mills Co. bought the works; and in 1889 they consolidated with the Union Steel Co., under the style of the Illinois Steel Co. The new organization bought the plant of the Joliet Steel Co. The various mills owned by the corporation represent a value of above $12,000,000; and there is beyond this a working capital of $6,000,000. Recently, large expenditures were planned, reaching far into the millions, to enlarge the works at South Chicago and Joliet, and to add the necessary plant for manufacturing under the basic process. The Illinois Steel Company makes a vast proportion of the rails and other metal goods used on the Western railroads, and has been a valued ally in the advance of civilization into the wilderness. It employs 12,000 men, with a yearly salary-list of $7,000,000; and produces each year more than 3,500,000 tons of Bessemer ingots, pig-iron and spiegel, rails and other articles of iron and steel. The company owns 4,500 acres of coal-lands, and 1,150 coke-ovens, 67 miles of railway, 60 locomotives and 2,000 cars. The works include 17 blast furnaces, four Bessemer works, four rail-mills, and billet, rod and structural mills. The first steel rails made in America were rolled in 1865, at the North-Chicago works.

CHICAGO: ILLINOIS STEEL COMPANY'S SOUTH WORKS.



CHICAGO: ILLINOIS STEEL COMPANY'S UNION WORKS.



JOLIET: ILLINOIS STEEL COMPANY'S WORKS.

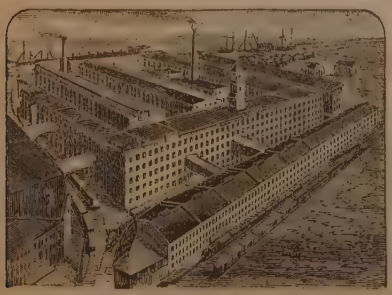
On the site of the first house ever built in Chicago—at first Au Sable's and later John Kinzie's—stand the enormous and famous soap and glycerine works of James S. Kirk & Co., the largest house of its class on the American continent. Kirk's soaps are among the comparatively small list of goods that are favorably known in almost all the households of the whole Union. In Chicago it is one of the most familiar of the great factories, for the immense five-story and basement substantial brick buildings stretch conspicuously along the river bank in the immediate vicinity of the wholesale business district. The large chimney, 282 feet high, that gives draft to the fires in boilers, supplying 1,600 horse-power, looms up to attract attention from all directions. In these buildings there are five acres of floor surface, wherein about 700 people are given constant employment. There are four main departments: (1) the laundry soaps, including the every-where-popular brands of "American Family" and "White Russian;" (2) the toilet soaps, with a list of hundreds of varieties of exquisite soaps, chief among which are "Shandon Bells" and "Juvenile;" (3) the perfumery, with its specialty of "Shandon Bells Perfume," and many varieties of toilet waters, concentrated essences, and toilet preparations; and (4) the glycerine, where the aim has been to obtain a chemically pure preparation, as well as all qualities for technical uses. Taken altogether, this house, established in 1839 by James S. Kirk, and now conducted by his seven sons, is one of the most notable of the industries of Illinois.

CHICAGO: JAMES S. KIRK & CO.

Fort Dearborn was constructed in 1803. It consisted of two block-houses and a parade-ground, enclosed by a strong palisade. The block at the corner of Michigan Avenue and River Street now bears a marble tablet, thus inscribed: This building occupies the site of old Fort Dearborn, which extended a little across Michigan Avenue and somewhat into the river as it now is. The fort was built in 1803–4, forming our outmost defense. By order of Gen. Hull it was evacuated August 15, 1812, after its stores and provisions had been distributed among the Indians. Very soon after the Indians attacked and massacred about fifty of the troops and a number of citizens, including women and children, and next day burned the fort. In 1816 it was rebuilt, but after the Black-Hawk war it went into gradual disuse, and in May, 1837, was abandoned by the army, but was occupied by various government officers till 1857, when it was torn down, excepting a single building, which stood upon the site till the great fire of Oct. 9, 1871.

Adler & Sullivan, Architects

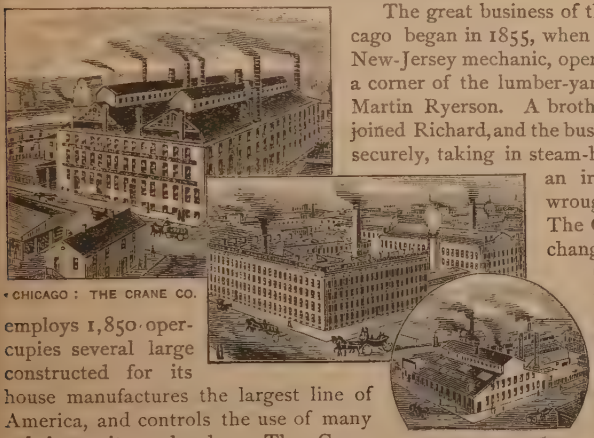
CHICAGO: GERMAN OPERA HOUSE.



CHICAGO. McCORMICK HARVESTING MACHINE CO.

The McCormick Harvesting Machine Company is the outgrowth of the original invention of the reaping machine, by Cyrus H. McCormick, in 1831. This machine is now universally admitted to be one of the wonders of the age, and has made it possible for the United States to become the greatest agricultural country in the world. After manufacturing his machine in a small way in Virginia, Mr. McCormick moved to Cincinnati, in 1846, and in 1847 he established his great business in Chicago. Since then

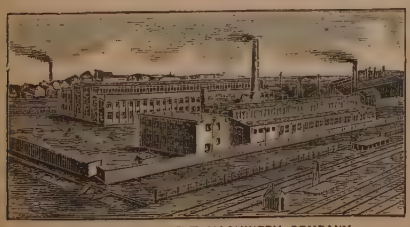
the works have grown to mammoth proportions, and the McCormick Harvesting Machine Co. to-day leads the world in the manufacture of agricultural implements. From an output of 50 machines, in 1844, the business has grown to the enormous aggregate of 123,570 machines in 1890. Besides reapers, mowers, binders and other kinds of harvesters, this concern furnished yearly 8,000 tons of Manila and Sisal twine to the farmers of the great Northwest, with which to bind their grain. The works cover 37 acres of flooring, with good dockage on the South Branch of the Chicago River. Upwards of 2,000 men are employed here, to say nothing of the vast army of agents engaged in the sale and distribution of their harvesting machines throughout the world. In the harvesting-machine business the late Cyrus H. McCormick was the pioneer, and through his machine is now universally regarded as one of the notable benefactors of the human race.



CHICAGO: THE CRANE CO.

The great business of the Crane Company of Chicago began in 1855, when Richard T. Crane, a young New-Jersey mechanic, opened a little brass foundry in a corner of the lumber-yard belonging to his uncle, Martin Ryerson. A brother, Charles S. Crane, soon joined Richard, and the business developed rapidly and securely, taking in steam-heating machinery in 1858, an iron-foundry in 1860, and a wrought-iron pipe-mill in 1864. The Crane Bros. Mfg. Company changed its name in 1890 to the Crane Company; and now, with a capital of $2,500,000, employs 1,850 operatives, and owns and occupies several large brick buildings especially constructed for its business. This pioneer house manufactures the largest line of steam and gas fittings in America, and controls the use of many patented articles of unusual ingenuity and value. The Crane Elevator Company, making passenger and freight elevators, is an offshoot of this corporation.

The Link-Belt Machinery Company is typical of American ingenuity for practical uses. It is an outgrowth of the great business in transportation and trans-shipment which has been a part of the development of our Northwestern empire. It was incorporated in 1880, since which the capital stock has been advanced from $20,000 to $350,000. The works cover six acres, at Chicago, and here great varieties of machinery and contrivances are designed and constructed for the handling of any material in bulk or package, and for the transmission of power. This company is closely allied to the Link-Belt Engineering Company of Philadelphia, which supplies New York and the East with machinery of a similar character. The Ewart link-belting, of links of refined malleable iron, is made in 31 regular sizes, and largely used instead of leather-belting (being less wasteful of power), in flour-mills and grain-elevators, breweries and malt-houses, tanneries and sugar-refineries. The company also makes elevators, conveyors, gearing, and countless other ingenious devices.



CHICAGO: LINK-BELT MACHINERY COMPANY.

The Adams & Westlake Company is an absorption of the old firm of Dane, Westlake & Covert, and the manufacturing interests of Crerar, Adams & Co., who were at Chicago the pioneer merchants in railway supplies in the West. John Crerar, the senior member of the firm, died in 1889, full of honors and of

CHICAGO: ADAMS & WESTLAKE COMPANY.

wealth, leaving a fortune of $5,000,000 to relatives and charities, and half of it to found a library. There were many articles, such as lamps, lanterns, and car-hardware and trimmings, which railroads needed, but which could not well be carried in stock, so they established a manufacturing department to meet these wants. J. McGregor Adams has been the president since the company's incorporation, in 1874, and the concern is the largest manufactory of railroad and street-car lamps and hardware in America, employing a thousand men, and occupying an entire block with its works. Among the products of the Adams & Westlake Co. are also a large variety of oil and vapor stoves, numerous specialties in the hardware line, and brass bedsteads.

One of the few great wholesale hardware houses in the world was founded at Chicago in 1855; and nine years ago received incorporation as Hibbard, Spencer, Bartlett & Co. It has trebled its size during the last fifteen years, and is still advancing. It employs 350 men, and a capital of more than a million dollars. Besides its warehouses, it occupies six contiguous and connected five-story buildings, making one huge establishment. The basement is filled with heavy articles, like nails and chains, and sheet and galvanized iron; the ground floor, with offices, and samples of all the lines of goods; the second floor, with mechanics' tools, builders' and shelf hardware, bicycles and sporting goods, guns and ammunition; the third floor, with tin and wire goods, cast hollow-ware, and lanterns; the fourth floor, with spades and shovels, and packing for shipment; and the fifth floor, with farming and gardening implements. The demand for these articles is unlimited, especially in the newer States; and commercial travellers represent the house in the remotest regions, replenishing the depleted stocks of the retailers with the endless varieties and many grades of metal goods of American and foreign make.

CHICAGO: HIBBARD, SPENCER, BARTLETT & CO.

The present tendency of the commercial and industrial world to concentrate and economize is remarkably exemplified in the growth of the American Wheel Company, whose headquarters are at Chicago. This company was incorporated late in 1889, and immediately acquired, by purchase, six of the leading wheel-making plants in America. The companies thus purchased were the Woodburn "Sarven-Wheel" Co., of Indianapolis (Ind.); N. G. Olds & Son, of Fort Wayne (Ind.); the Keyes Mfg. Co., of Terre Haute (Ind.); the Sandusky Wheel Co., of Sandusky (Ohio); Hoopes Bro. & Darlington Co., of West Chester (Pa.); and the Wapakoneta Spoke & Wheel Co., of Wapakoneta (Ohio). This confederation has gradually been increased until the American Wheel Company now owns and operates directly or indirectly upwards of 30 plants, scattered over a large portion of the Union. The American Wheel Company is not a Trust, but a plain corporation, organized under the laws of Illinois, with a capital of $3,000,000, which is being used in the manufacture of vehicle wheels. Immediately upon acquiring the plants, this company set about systematizing the work in each factory, until at the present time but two or three sizes are manufactured, where the variety before was almost unlimited. By this action the cost of production has been materially decreased, and in addition, the company has cut off all selling expenses, and by being large purchasers of material are able to place their product upon the market at a much less cost than could have possibly been reached by any of the individual concerns which this corporation purchased. The company is in a prosperous condition, with a largely increased business.

CHICAGO: MARSHALL FIELD & CO. (RETAIL.)

CHICAGO: MARSHALL FIELD & CO. (WHOLESALE.)

Away back in the fifties, Potter Palmer founded a dry goods business in Chicago; and in 1865 Marshall Field, Levi Z. Leiter and Milton J. Palmer succeeded to it, under the name of Field, Leiter & Co., which in 1881 became Marshall Field & Co. This is the largest house in its line in America, employing 3,500 persons, and having branch offices at New York, Manchester, Paris and Chemnitz. The business reaches $37,000,000 a year, about one fifth of which is at retail. They distribute goods throughout the entire United States, purchasing immense quantities for cash, and thus being able to supply the trade and others at the lowest possible prices. At all seasons they carry very large stocks, not only of imported and American dry-goods, but also of furnishings and carpets, upholstering goods, furs, and many other lines. The retail building is hardly surpassed in spaciousness and beauty; while the wholesale building, designed by H. H. Richardson, and built by Norcross Brothers, forms the most magnificent commercial edifice on the continent. These two structures are in different parts of Chicago, and cover great areas of ground.

CHICAGO: HENRY W. KING & CO.

In the matter of clothing the citizens of the Northwest, whether men or youths, boys or children, the firm of Henry W. King & Co., of Chicago, is the largest single manufacturer. This firm was founded in 1854, as Barrett, King & Co. Mr. Barrett retired in 1864, when the firm changed to King, Kellogg & Co.; and in 1868 the firm dissolved, and Mr. King associated with himself, Wm. C. Browning and Edward W. Dewey, of New York, under the firm-names of Henry W. King & Co., Chicago, as wholesalers, and Browning, King & Co., New York, as manufacturers. Besides their jobbing business at Chicago, which is an extensive one, they have retail stores in New York, Brooklyn, Philadelphia, Cincinnati, St. Louis, Kansas City, Omaha, Minneapolis, St. Paul, Milwaukee and Chicago. Fully 4,000 persons are in the employ of these concerns, and the pay-roll of the New-York factory is $1,000,000 a year, and the general output of clothing, between four and five million dollars annually, reaching all parts of America.

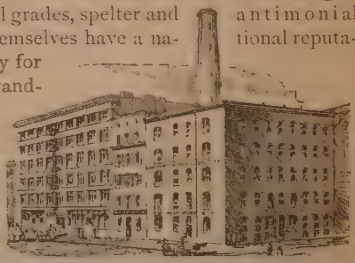
The ladies of all the great interior and Western States are largely supplied with their millinery, furnishings and fancy goods from stocks supplied by D. B. Fisk & Co., of Chicago, probably the largest and most ably managed house of the kind in the world. Their emporium covers six large and well-lighted floors, each nearly half an acre in area, with artistic displays of costly ribbons and feathers, beautiful flowers, fine straw goods and other attractive articles, from their own factory, as well as from the most famous manufactories in Europe and elsewhere. The house was founded in 1853, by D. B. Fisk, who has seen it grow into an immense establishment, with 500 employés, and a whole-

CHICAGO; D. B. FISK & CO.

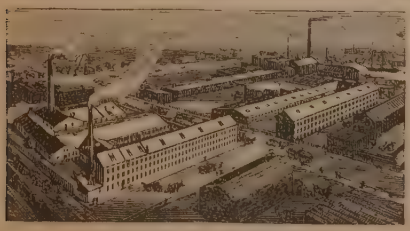
CHICAGO: MANUAL TRAINING SCHOOL.

sale trade reaching over more than half a continent. One of the chief needs of a millinery house is intimate connection with the European centres of fashion; and the arrangements here are so perfect, that this firm offers the choicest French and Continental novelties to its patrons simultaneously with their appearance in the fashion centres of Europe.

Few houses in Chicago, or the whole west, are more honorably known than E. W. Blatchford & Co., whose trade-mark motto—"reputation, a tower of strength"—has been truly borne out in an uninterrupted career of almost 40 years. The business was established in 1854, and incorporated in 1890. It includes the manufacturing of lead and kindred and alloyed metals, and their various products,—sheet, bar, pig and glaziers' lead, lead pipe, sash weights, solder, electrotype, stereotype and babbitt metals, etc.; and also the dealing in pig tin, and ingot, sheet and bar copper, antimony of all grades, spelter and antimonial lead. Closely allied are two establishments, which themselves have a national reputation—the Chicago Shot Tower Works, with capacity for 50,000 pounds a day of their famous brands of "standard" shot made into 30 sizes, and the Blatchford Cartridge Works, making a full line of cartridges. The group of factories are on the west side, and are substantial brick structures, covering the greater part of a block. The shot tower, 200 feet high, has been a familiar landmark for a quarter of a century. While being recognized as eminently successful business men and notable manufacturers, the Blatchfords have been prominently identified with charitable, religious and educational institutions.



CHICAGO; E. W. BLATCHFORD & CO.



CHICAGO; WALKER OAKLEY COMPANY.

The immense development of the shoe-manufacturing business in the West has been materially facilitated by the erection of completely equipped tanneries in various localities. The foremost of these belongs to the Walker Oakley Company, whose enormous Chicago tanneries employ 400 men, and produce yearly 400,000 wax calf-skins, 150,000 kips and 50,000 satin calf, which are disposed of at the company's offices at Chicago, Boston and San Francisco. This industry was founded in the sixties, by Joseph H. Walker, of Worcester (Mass.), and others, and received incorporation in 1890, under the Illinois laws, having a very large paid-in capital and strong security. The trade extends all over the country of the Great Lakes and the Mississippi Valley, and is growing with the growth of the population of the Northwest. The Walker Oakley Company enjoys peculiar advantages for a liberal disposition of its resources on account of its nearness to the sources of supply as regards the material for fine grades of leather.

Among the oldest and most prominent houses of Chicago is that of M. D. Wells & Co., manufacturers of and wholesale dealers in boots and shoes, whose origin dates from the year 1860, since which they have advanced with steady step, widening the area of their trade. At present, they are rated

CHICAGO: M. D. WELLS & CO.

as worth upwards of $2,000,000, and are adding largely to their capital each year. Chicago is the greatest distributing point for boots and shoes for the whole West and South, and hence there have grown up several enormous houses in this line, but the foremost of all is M. D. Wells & Co. They have their own factories, and use the whole output of other factories; and enjoy the closest relations with many of the manufacturers of New England and elsewhere. They employ 600 persons in their factory, with an output of 3,000 pairs of boots and shoes daily; and the store and salesrooms occupy seven floors, and employ 75 travelling salesmen.

CHICAGO: SPRAGUE, WARNER & CO.

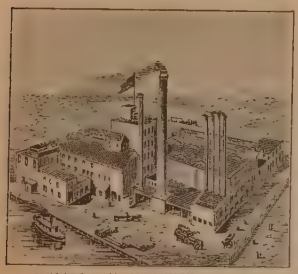
Here, also, at Chicago, is the great supply-point for the thousands of grocery-stores and country-dealers in the interior of the continent; and it is claimed that the wholesale grocery-house of Sprague, Warner & Co. has the largest business of any house in its line in America. This concern was founded by A. A. Sprague and E. J. Warner, in 1862, when it began with a very small stock and a borrowed capital. O. S. A. Sprague entered as a partner in 1863. Increasing year by year, parallel with the growth of its tributary States, the company has attained a gigantic development, and sends its men and goods throughout all the interior, Western and Far-Western regions, with a trade extending from Texas to Manitoba. All the members of the firm are Vermonters, and combine New-England prudence and industry with Western enterprise. With all the jobbing houses of Chicago, they were burned out and sustained heavy loss in the great fire of 1871, but opened business the next day on the West Side. A single truck-load of merchandise, saved from the conflagration, comprised their entire stock for the first week, but unimpared credit and fast freight enabled them in a short time to supply the demands of their customers.

CHICAGO: CENTRAL MUSIC HALL.

The A. Booth Packing Company are the largest packers of hermetically sealed canned goods in the world, that is, they produce the largest number of cans actually packed. This enormous oyster, fish and canned goods business was founded in 1850 by Alfred Booth, who is still at the head of the corporation, which now operates with a paid-up capital of $1,000,000, and a surplus nearly as large. The chief offices, at Chicago, and the 21 branches, employ 5,000 people. The principal fishing stations are at Duluth (Minn.), Bayfield and Ashland (Wis.), Ontonagon, Manistique, St. Ignace, St. James, and Escanaba (Mich.), Port Arthur (Ont.), and Winnipeg (Man.). The main distributing houses are at Chicago, St. Paul, Minneapolis, St. Louis, Omaha, Lincoln, Kansas City, and Denver. At Baltimore their factory has a capacity for packing 75,000 cans daily. Here their ample fleets obtain large supplies of oysters from Chesapeake and Delaware Bays, and the choicest fruits and vegetables from the surrounding country. At Astoria, on the Columbia River, their salmon packing establishment is the largest in the industry. At Mobile their immense plant is equipped to pack the great yield of oysters and shrimps. The canned goods bearing the A. Booth Packing Company's brands—"Oval," "Black Diamond," and "Old Honesty" on Cove oysters, shrimp, fruits, vegetables and fish, are sold by grocers throughout the world; the prominence of these brands resulting from extreme caution and careful selection of thoroughly trustworthy goods. This company are

CHICAGO: A. BOOTH PACKING CO.

the largest patrons of the express companies in America. Their operations extend from the Atlantic to the Pacific, and from Lake Winnipeg to the Gulf of Mexico, requiring the constant use of several lines of steamships, running in connection with their fishing boats.



CHICAGO: H. H. SHUFELDT & CO.

The preëminent distillery of the United States is Henry H. Shufeldt & Co.'s, at Chicago. It has a fame throughout the world for various reasons. Ever since 1849, when the distillery was established, its goods have been recognized as unsurpassed. Its rectifying house was established in 1857. In 1878, at Paris, in competition with the choicest productions of all nations, this house was awarded the gold medal "for purity and excellence of products of distillation over all competitors." In 1891 it was discovered that a plot had been put into execution to blow up and destroy Shufeldt & Co.'s distillery, the impression being that it was due to the fact that this was almost the only formidable house refusing to enter into the so-called "whisky trust." The plant covers over four acres. The warehouses can store 25,000 barrels. The capacity is 9,000,000 gallons a year, requiring more than 2,100,000 bushels of corn. Five million dollars a year are paid to the Government for duties on distilled spirits. Its well-known brands of "Imperial Gin" and "Rye Malt Gin" are distilled by the improved Holland process. A special product is "Grano-Gluten Feed," for feeding cattle.

The American Biscuit & Manufacturing Company, with general offices at Chicago, is the largest corporation in the world producing biscuits, crackers, bread, confectionery and macaroni. The company was incorporated in 1890, with a capital of $10,000,000. On its pay-rolls appear the names of 3,000 people, who are engaged in manufacturing and selling its products. It is the largest consumer of flour and sugar in the world, using 10,000 barrels of flour and 5,000 barrels of sugar a week. It owns and operates 35 plants, including the principal baking establishments in the United States, the largest being in New York, Chicago, St. Louis and Kansas City. Its factory in New York has the greatest capacity of any biscuit works in the United States. At these plants are turned out many well-known specialties, which enjoy a national reputation with consumers of biscuits and confectionery. The company is the owner of the celebrated Dake, Bremner, Dozier, Langles, and other familiar brands of crackers. Since the incorporation many improvements and economies have been introduced into the methods of manufacturing and disposing of its out-put, thereby enabling it to produce crackers and confectionery of a superior quality, and at a lower cost than others. The officers have had long experience in their line, and the plants are managed by practical men who have grown up in the business.

CHICAGO: AMERICAN BISCUIT & MFG. CO.

The Albert Dickinson Company of Chicago is the foremost grass and field seed-house of the United States. It was established in 1854, by Albert F. Dickinson, the father of the president of the present corporation. At that time the business was chiefly on commission; but for many years they have been exclusively dealers in the products handled, buying at and selling to the principal American and European centres. Albert Dickinson succeeded to the business in 1872, since which time it has grown rapidly, especially during the past ten years. In 1887 the present company was

CHICAGO: A. DICKINSON COMPANY.

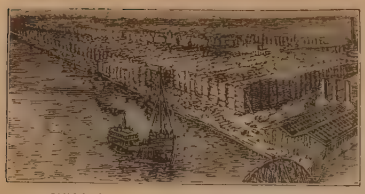
incorporated, with a capital of $200,000 (since increased to $250,000), and now their operations as dealers extend over the whole American continent, and their exports and imports to and from Europe are very large. Among the varieties of agricultural seeds handled, their specialties are clovers and timothy, besides the other staples. Flax-seed is also dealt in largely, being shipped in cargoes to distributing points, and in carloads to local crushers. As importers of bird-seeds they stand unrivalled, and in pop-corn their output is probably the largest in this country. The main offices are on Kinzie Street, where the firm occupies several large buildings; but the principal warehouse is a large brick structure, at the corner of 16th and Clark Streets, owned and occupied solely by the Albert Dickinson Company, and used only in re-cleaning and re-handling the various articles connected with the business.

The genius of the brick-making art is J. C. Anderson, of Chicago, who has taken out several scores of patents pertaining thereto. Under his inspiration the material which had only been used for the plainest buildings has become full of artistic beauties and capabilities, richly varying in shapes and sizes, surfaces and colors; and the brick industry, which a few years ago was among the commonest of manufactures, can now claim a position among the fine arts. The Chicago Anderson Pressed-Brick Company, under Mr. Anderson's presidency, has a plant covering nine acres, on the North Branch of the Chicago River, and employs 200 men, working under the Anderson patents, in conjunction with the New-England and New-York Anderson Pressed-Brick Companies. These three corporations control the manufacture and sale of obsidian brick, remarkable for rich body colors in browns, grays and blues; metallic-dressed brick, yielding bronze and metal-tinted colors; mossed brick, covered with a similitude of mosses; aluminum brick, silvery and bronze-like, indestructible by heat, weather or abrasion, and turning the hardest steel points; brecciated enamel brick, richly colored and glazed, and adaptable for the finest interior decorative work; plain enamel and rock-faced brick; brick in fac-simile of granite and other stones, in color and grain; and a variety of shapes and sizes of brick for decorative uses.

CHICAGO: ANDERSON PRESSED-BRICK CO.

The latest and greatest of the Anderson inventions is in use by the Chicago Anderson Common Brick Company, at their new half-million-dollar plant, covering 80 acres, and having a capacity of 300,000 brick a day. Two tunnel-kilns 672 feet long run through the main building, and at their centres burn perpetual fires of crude oil, hot enough to melt steel. There are 48 standard-size cars of iron, protected by fire-proof coverings, and each bearing 12,000 brick, continually being pushed through the tunnels, by screw-power. The cars of green brick slowly pass a succession of intensely hot cars of burnt brick, moving away from the central fires, and from their escaping heat the green brick are baked to a cherry red, even before they reach the fires, where they receive a final shrinking heat. Then they move out again, yielding their heat to in-coming cars of green brick. They are loaded from the press on to the iron-kiln cars, and from these on to the cars for the market, thus saving a great amount of handling and labor, while the economy of fuel and heat is an element of high value. James C. Anderson, the inventor of this marvelous process, is president of the company, which is capitalized at $600,000. The works are on the Stickney tract, near the elaborate system of the Chicago Union Transfer Railway Company. Power is furnished by a battery of six large boilers, running several engines; and the entire plant is lighted by electricity, and thoroughly equipped for efficient service, for the enormous work devolved upon it.

CHICAGO: ANDERSON COMMON BRICK CO.



CHICAGO: CHICAGO LUMBER COMPANY.

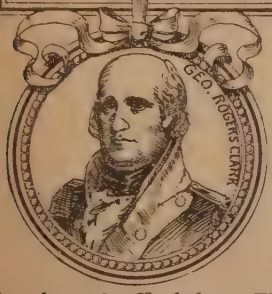
One of the greatest needs of the treeless prairie regions of the West is lumber for building purposes. The largest manufacturers and distributors of lumber and building material is the Chicago Lumber Co., with its numerous yards throughout the States of Iowa, Missouri, Kansas, Nebraska and Colorado. This company was established in the year 1866, and now employs a paid-up capital of $5,000,000; and their yearly sales amount to $18,000,000. They manufacture and handle lumber from all sections of the country, redwood from California, white pine from Michigan and Wisconsin, yellow pine from the Southern States, and yellow poplar from Virginia, Tennessee and Kentucky. The stock includes huge piles of boards and joists, laths and shingles, in all varieties, and doors and blinds, battens and pickets, and other building materials, in pine, maple, poplar, cypress, redwood and other woods. The active head of the Chicago Lumber Co. is M. T. Greene, president and general manager; and S. R. Frazier, Jr., is secretary. The general offices of the company are at Chicago. Railroads traverse the Chicago yards in every direction.

The leading American house in the manufacture and introduction and sale of athletic goods of every description is that of A. G. Spalding & Bros., of Chicago, which was organized in 1876 by A. G. Spalding and J. W. Spalding. The house was incorporated under the laws of Illinois, in 1885, and now maintains large establishments in New York and Philadelphia, as well as in Chicago. Their manufactories are located in Chicago and Philadelphia, and their capital of over half a million dollars is fully employed in the manufacture and sale of base-ball goods, lawn tennis, outdoor games, bicycles, gymnasium apparatus, athletic uniforms, and in fact athletic goods of every description. Everyone interested in base-ball, the national game of America, is fully aware of the preëminent position A. G. Spalding occupies, as president of the Chicago Base-Ball Club, and as one of the leaders in the base-ball legislation of the country. The increased interest in athletic sports is having a marked influence in the development everywhere of sound minds and sound bodies, and the house of A. G. Spalding & Bros. is now, and has been for 15 years, the leader in promoting the popular interest in all manner of vigorous outdoor recreations and exercises, and hence is a benefit to the American people.

CHICAGO: A. G. SPALDING & BROS.

In 1872, the year after the great Chicago fire, two young employés of crockery houses, E. H. Pitkin and J. W. Brooks, Jr., established a new crockery concern, occupying a little frame building on Michigan Avenue. From this small germ has grown the firm of Pitkin & Brooks, one of the greatest American houses in the crockery and queensware, glassware and china trade, founded safely on the well-won confidence of the dealers throughout the West and South and the residents of Chicago and transient visitors. Immense importations of the finest foreign wares and consignments of American goods of similar character are received at its many-storied Chicago store and warehouses, which have very spacious and attractive show-rooms and retail sales-rooms, the best in their line in America. From these inexhaustible resources, the country from Canada to Mexico, and from the Pacific Ocean to Chesapeake Bay, is largely supplied with all grades of crockery and glassware, from the heavy, cheap and serviceable articles used by the industrial and rural families to the exquisite and delicate decorated china, Haviland and Royal Worcester, and the diamond-like cut glass which adorn the tables of the wealthy,—Pitkin & Brooks' special importations.

CHICAGO: PITKIN & BROOKS.



HISTORY.

Indiana's first European visitor was La Salle, who, in 1669–70, coasted along the Ohio River with his brave French explorers and opened a trade with the natives. Afterwards he crossed the portage (near South Bend) from the St. Joseph to the Kankakee. This brilliant chieftain concentrated all the Indians of the Ohio Valley around his fort on the Illinois River, for mutual defense against the terrible Iroquois, and in so doing he depopulated Indiana. After the French founded Detroit the local tribes wandered back into Indiana and settled there. Post Ouiatenon, founded near the site of Lafayette in 1720, was the first military establishment here, followed, seven years later, by the Poste du Ouabache, which the Sieur de Vincennes, established, on the site of the present Vincennes. Indiana lay partly in Canada and partly in Louisiana, the region north of Terre Haute being governed from Detroit, while the remainder received its rule from New Orleans. The best French officers and Indian warriors of Indiana were slain in an attack on the Chickasaws, in 1736, and after that Lieut. St. Ange commanded at Vincennes for nearly thirty years, with prudence and wisdom. After the cession of the western country to Great Britain, British officers came to the Wabash villages and set up the rule of London. The residents, descendants of the Canadian wood-rangers (*coureurs de bois*) and French soldiery, dwelt in the peace of contented peasantry, raising plenty of good wheat, tobacco and wine, with the help of Indian and African slaves. For two thirds of a century the French made one of their favorite routes from Lake Erie to the Mississippi River across Indiana, ascending the Maumee River, with a long portage near Lafayette, and then descending the Wabash and Ohio. Their chief villages and trading-posts were at the head of the Maumee, Wea Prairie (Lafayette) and Vincennes. In 1778, George Rogers Clark

STATISTICS.

Settled at	Vincennes.
Settled in	1702
Founded by	Frenchmen.
Admitted as a State,	1816
Population in 1860,	1,350,428
In 1870,	1,680,637
In 1880,	1,978,301
White,	1,938,798
Colored,	39,503
American-born,	1,834,123
Foreign-born,	144,178
Males,	1,010,361
Females,	967,940
In 1890 (U. S. Census),	2,192,404
Population to the square mile,	55.1
Voting Population (1880),	498,437
Vote for Harrison (1888),	263,361
Vote for Cleveland (1888),	260,969
Net State Debt (1890),	$3,661,723
Assessed Valuation of Property (1890),	$783,000,000
Area (square miles),	36,350
U. S. Representatives (1893),	13
Militia (disciplined),	2,344
Counties,	92
Post-offices,	2,093
Railroads (miles),	5,971
Manufactures (yearly),	$148,000,000
Farm Land (in acres),	21,000,000
Farm-Land Values,	$635,000,000
Public Schools,	10,000
Average School Attendance,	409,000
Newspapers,	698
Latitude,	37°47′ to 41°46′ N.
Longitude,	84°49′ to 88°2′ W.
Temperature,	—25° to 101°
Mean Temper'ture (Indianapolis)	52.3°

TEN CHIEF CITIES AND THEIR POPULATIONS (CENSUS OF 1890).

Indianapolis,	105,436
Evansville,	50,756
Fort Wayne,	35,393
Terre Haute,	30,217
South Bend,	21,819
New Albany,	21,069
Richmond,	16,608
Lafayette	16,243
Logansport,	13,328
Elkhart,	11,360

and his Virginians, advancing from Kentucky, captured Vincennes and other British posts north of the Ohio. Thereupon Gov. Hamilton led down a British force from Detroit and recaptured Vincennes, but Col. Clark advanced rapidly against him, and after a close siege compelled the Royal forces to surrender the fort, with thirteen cannon and $500,000 worth of military stores.

WYANDOTTE CAVE.

After the Virginians had conquered the country, the greater part of Indiana rested under a court of justice at Vincennes, which freely granted territory to all applicants. At this time the non-Indian inhabitants were all French or half-breeds, and numbered fewer than 1,600 persons. Another singular element came into Indiana in 1781, when a force of Spaniards under Capt. Eugenio Pourré marched across it from St. Louis and captured Fort St. Josephs. After Virginia ceded her vast inland empire to the United States in 1784, the Vincennes administration became part of the Territory Northwest of the Ohio River; and in 1800 Indiana became a Territory, including also Illinois, Michigan, Wisconsin and part of Minnesota. In 1804–5 the jurisdiction of Indiana covered all the country from Ohio to the Oregon Country. According to the report of Jefferson's congressional committee, in 1804, parts of Indiana were to have been allotted to the proposed States of Polypotamia, Pelisipia, Illinoisa, Saratoga, Assenisipia and Metropotamia.

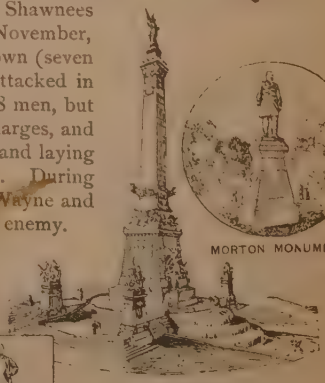
INDIANA: FARM SCENE.

Louis XV.'s decree established slavery in the Mississippi and Ohio Valleys, but the American Ordinance of 1787 set the Northwest Territory apart for freedom. A strong party in southern Indiana favored the perpetuation of slavery there, and kept it in actual operation until after 1840.

In 1811 the eloquence of Tecumseh aroused the Shawnees to hostility against the American Government. In November, 1811, Gov. Harrison advanced to the Prophet's Town (seven miles north of Lafayette) with 900 men, and was attacked in camp by 1,000 Indians before sunrise. He lost 188 men, but finally repulsed the enemy by a series of desperate charges, and inflicted heavy losses on them, burning their town and laying waste the country. The Shawnees sued for peace. During the war of 1812 Indiana suffered severely, and Fort Wayne and other strongholds were assaulted or besieged by the enemy.

MORTON MONUMENT.

Costly and premature internal improvements after 1830 reduced the State almost to bankruptcy, especially after the financial constriction of 1837. For ten years Indiana could not even pay the interest on her bonds; but, in 1847, she resumed this obligation, and the free banking law, the extension of railroads, and the inpouring of emigrants ensured a new and permanent prosperity.


INDIANAPOLIS: SOLDIERS' AND SAILORS' MONUMENT.

COLFAX MONUMENT.

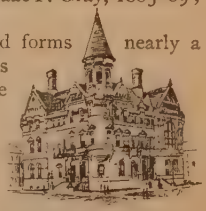
The Name Indiana was first applied to a tract of 3,500,000 acres granted by the Indians in 1768 to a number of traders. It refers to the aborigines. The pet name is THE HOOSIER STATE; from *Hushers*, the huge white or Indian bullies who could hush one to an endless sleep; or from a frequent local phrase, "Who's yer?"

EVANSVILLE: U.-S. COURT-HOUSE AND POST-OFFICE.

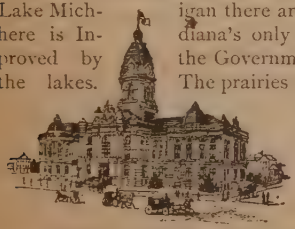
The Arms of Indiana show an undulating prairie and woodland, with a buffalo in the foreground, startled by the axe of a pioneer, who is felling a great tree. In the background the sun is rising.

The Governors of Indiana have been: *Territorial*, Wm. Henry Harrison, 1800–11; John Gibson (acting), 1811–13; Thos. Posey, 1813–16. *State*, Jonathan Jennings, 1816–22; Wm. Hendricks, 1822–25; James Brown Ray, 1825–31; Noah Noble, 1831–37; David Wallace, 1837–40; Samuel Bigger, 1840–43; James Whitcomb, 1843–48; Paris C. Dunning (acting), 1848–49; Jos. A. Wright, 1849–57; Ashbel P. Willard, 1857–60; Abram A. Hammond (acting), 1860–61; Henry S. Lane, 1861; Oliver P. Morton, 1861–67; Conrad Baker, 1667–73; Thos. A. Hendricks, 1873–77; Jas. D. Williams, 1877–80; Isaac P. Gray (acting), 1880–81; A. G. Porter, 1881–85; Isaac P. Gray, 1885–89; Alvin P. Hovey, 1889–91; and Ira J. Chase (acting), 1891–3.

Descriptive.—Indiana is the smallest of the Western States and forms nearly a rectangle, with Kentucky on the south, beyond the Ohio River, Illinois on the west, Michigan and Lake Michigan on the north, and Ohio on the east. It is a vast undulating plain, inclining toward the southwest, where, at the mouth of the Wabash, it reaches its lowest point, 370 feet above the sea. The greater part was formerly covered with forests of oak, maple, beech and walnut, and the region north of the Wabash comprises many treeless prairies, brightened by small lakes. The sloughs and lagoons of the north enabled Indiana to claim 1,200,000 acres under the Swamp-Act land-grant, and afflicted the early settlers with almost perpetual chills and fever. In later days the greater part of this area has been drained and improved. There are 21,000,000 rods of drain-tile in operation. North of Indianapolis the country is a rich loam, resting on a strong clay sub-soil. Along Lake Michigan there are fifty miles of shore-line, with belts of high sand-hills, and here is Indiana's only lake port, at Michigan City. This harbor has been improved by the Government at a cost of $900,000, and admits the largest vessels on the lakes. The prairies are diversified by low ridges and mounds and oak-groves, and the sluggish streams often flow through deeply-wooded glens. The uplands are rich and productive, except in the southeast, and the river-bottoms cover great areas of the best soil. The tendency of late years has been to subdivide the farms, making a great number of homesteads. Land is held at from $6 to $100 an acre, depending on its location and improvement. The Ohio Valley is a hilly limestone region, with abrupt ridges, cut by the tributaries of the great river and forming knobs from 400 to 500 feet high. Half a century ago great forests covered these rugged highlands, and much of the country remains in its primeval condition. Indiana is the westernmost of the heavily-timbered States on this parallel of latitude, and more than a third of its surface is still in woodlands, where the hemlocks and maples of the North meet the cypresses and sweet gums, pecans and sycamores of the South. Many of

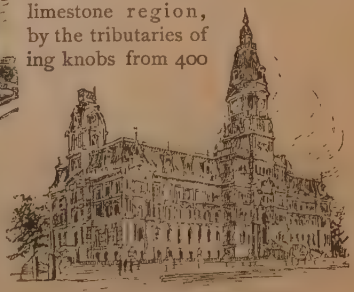


FORT WAYNE: P. O. AND COURT-HOUSE.

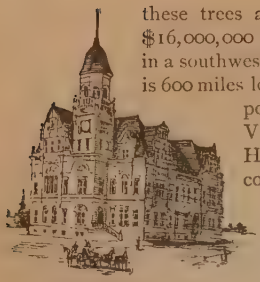


EVANSVILLE: COURT-HOUSE.

TERRE HAUTE: COURT-HOUSE.



INDIANAPOLIS: COURT-HOUSE.


VINCENNES: CITY HALL.

these trees are of great size and beauty. The lumber product is above $16,000,000 yearly. The Wabash drains three fourths of Indiana, crossing it in a southwesterly course and forming the western boundary for 100 miles. It is 600 miles long and has been ascended 300 miles by steamboats, to Logansport. There are six steamboats plying along the stream below Vincennes, and nine steamers run between Vincennes and Terre Haute (90 miles) and ports above. The rich Wabash Valley covers 12,000 square miles. The West Fork (300) miles and East Fork (200 miles) form the White River, which in fifty miles reaches the Wabash. Its valley of 9,000 square miles is flat and heavily timbered, with prairies and rugged hills in the west. The St. Joseph flows into Lake Michigan; the Maumee into Lake Erie. In the northern counties many lakes and ponds spread out over the level lowlands, with pleasant scenic effects.

The Climate is in the main healthy, although the north and northwest winds of winter are severe and cause sharp changes in the temperature. Spring opens early, and by April the fruit-trees are in blossom. The mean yearly temperature of Indianapolis varies from 50½° to 56½°.

Agriculture employs a great majority of the people, and the rich alluvial soil, nearly a yard deep, and with almost no waste land, gladly produces abundant and profitable crops. There are 9,000,000 acres in ploughed land and meadow and 2,000,000 in pasture. The farm products of Indiana were valued in 1870 at $123,000,000, and in 1880 at $308,000,000. Nearly 7,000,000 acres are devoted to cereals, yielding 200,000,000 bushels yearly, the average product to the acre being much greater than that of England or France. The Wabash Valley is the richest known region for corn and wheat. The corn crop yields in favoring years 130,000,000 bushels, valued at over $30,000,000, and taking up nearly 3,000,000 acres. The wheat crop exceeds 40,000,000 bushels yearly, worth above $30,000,000, and occupying nearly 3,000,000 acres. 46,000,000 bushels of oats are produced, worth $7,000,000; and there are large crops of barley, rye, clover seed, flaxseed, buckwheat, sorghum, potatoes and tobacco. The clover and timothy hay crop passes 1,000,000 tons yearly, and has reached 2,900,000 tons, valued at $35,000,000. There are 10,000,000 fruit-trees in Indiana, bearing yearly 36,000,000 bushels of apples and 4,000,000 bushels of peaches. The fruit-bearing countries are mainly in the northeast, but peaches are largely cultivated in the south. The orchards yield 4,000,000 gallons of cider, and the vineyards 7,000,000 pounds of grapes. In the early days of the Swiss immigrants large quantities of wine were produced. The live-stock of Indiana includes 600,000 horses and mules, 850,000 oxen, 500,000 milch cows, 2,200,000 hogs, and 1,400,000 sheep, valued at $70,000,000. The sheep once numbered

INDIANAPOLIS: HOSPITAL FOR THE INSANE.

INDIANAPOLIS: INDIANA REFORMATORY FOR WOMEN.

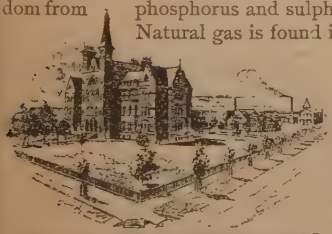
EVANSVILLE: BUSINESS MEN'S ASSOCIATION.

CRAWFORDSVILLE: WABASH COLLEGE.

over 2,000,000, and are mostly in the northeast and the Wabash Valley. They yield 4,000,000 pounds of wool yearly. The midland and northern counties have most of the live-stock. In 1888, 1,750,000 hogs, cattle and sheep were slaughtered for food. The dairy products include yearly 156,000,000 gallons of milk, 33,000,000 pounds of butter, and 600,000 pounds of cheese. Indiana also sends out yearly 800,000 chickens and poultry, 24,000,000 dozen of eggs and 200,000 pounds of feathers. She has 120,000 hives of bees, producing over 1,000,000 pounds of honey each year.

Minerals.—There are 7,000 square miles of bituminous coals, cannel and block, coking and non-coking, and their use has been growing since 1870. The block coal is of great value in smelting. It comes in cubical blocks, easy to mine and handle, free from sulphur and phosphorus, and burning down into a fragment of white ash. The seams are from one to eleven feet thick and easily mined, the deepest shaft being 300 feet. A fine cannel coal is mined at Cannelton and elsewhere near the Ohio River, in veins from three to five feet thick. It burns freely, with a brilliant flame, and has a conchoidal fracture and a dull lustre. It is better than the English coal for smelting, and the best known for making steel, on account of its freedom from phosphorus and sulphur. Natural gas is found in a wide belt of counties, and issues from 400 wells, the capital invested being $6,000,000. Thousands of families use this product for heating, cooking and lighting, and many large factories are run by it. The State contains large deposits of hematite iron ore, which is mixed with the Lake-Superior and Missouri specular ores. Bog iron occurs in valuable deposits. Among other minerals are sandstone and gypsum, slate and lithographic stone, the whetstone of Paoli, the marble of Vevay, the bluestone of Bluffton, white glass-sand and brick and porcelain clays. Great quantities of Portland cement are made in the south.

LAFAYETTE: PURDUE UNIVERSITY AND ART SCHOOL.



TERRE HAUTE: ROSE POLYTECHNIC INSTITUTE.

The great Wyandotte Cave near Leavenworth has an unusual wealth of stalactites and stalagmites, with a hall 350 feet long and 240 feet high, extending for miles underground. Hamer's Mill Stream Cave, in Lawrence County, has been explored for nine miles, by canoes rowed up the out-flowing river. The French Lick and West Baden Springs, near Lost River, the Indian Springs and the Trinity Springs, all in southwestern Indiana, are saline sulphur waters; and the waters of Lodi and Lafayette are of similar character. The Greencastle and Knightstown waters are chalybeate.

Chief Cities.—Indianapolis, the centre and capital city, was named in 1821, in a vast level forest broken only by Indian trails, and laid out by one of the surveyors of Washington City, with magnificent avenues. It is a famous railway centre, with fifteen converging lines and a belt railroad,

INDIANAPOLIS: THE PROPYLÆUM.

UNIVERSITY OF NOTRE DAME.

and has a large trade in grain and live stock, and many manufactures, employing 10,000 persons, and producing $30,000,000 worth of goods yearly. There are four grain elevators, eight flour and grist mills, 100 acres of stock-yards and four meat-packing houses. The churches number eighty, and many fine public buildings adorn the city. Evansville has a large trade by steamboats along the Ohio River and on the seven railways centering there, with exports of coal, lumber, tobacco, grain and pork, and 400 factories, employing 11,000 people and $31,000,000 of capital. It is the chief trade-mart of the Green-River region of Kentucky. Fort Wayne, built in 1794, on the site of an ancient Miami village and an English fort of 1764, is the chief city of northeastern Indiana, abounding in factories and railroads. Terre Haute, on the Wabash, is a fast-growing city of manufactures and general trade, with six railways. Logansport is a pleasant manufacturing city, at the falls of the Wabash, in a rich farming country. Lafayette, on the Wabash and in a rich farming country, has large commercial and manufacturing interests. Laporte adjoins the rich Door Prairie. Corydon was the State capitol from 1813 to 1825. Richmond is in the rich cereal country east of Indianapolis. South Bend, on the St. Joseph River, is famous for its manufactories of wagons and other useful articles. Vincennes, the oldest city in Indiana, and its capital from 1800 to 1813, lifts many tall spires in the heart of the garden of the Wabash Valley. Jeffersonville and New Albany are on the Ohio, opposite Louisville, and many river steamboats are built on their shores. Madison, midway between Cincinnati and Louisville, is beautifully located on the Ohio River.

GREENCASTLE: DE PAUW UNIVERSITY.

The Government consists of a governor and lieutenant-governor, elected for four years, and other executive officers; the biennial general assembly of 50 four-years' senators and 100 two-years' representatives; the Supreme Court of five justices, elected by the people; and the circuit and superior courts. The State capitol at Indianapolis was begun in 1877 and cost $2,000,000. It is of Indiana oölitic limestone, with adornments of statuary, polished columns and rich interior work in oak. The dome is 234 feet high.

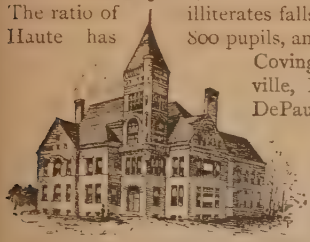
Charities and Corrections are relatively less costly in Indiana than in many other States, because the commitments for crime are below the average. This is in part due to the more even distribution of property among the people, who show an unusual proportion of house-holders. The Northern Prison, at Michigan City, has 700 convicts; the Southern Prison, at Jeffersonville, has 540. The House of Refuge for boys, on a large farm at Plainfield, has 470 inmates, governed by the family system. At Indianapolis are the great buildings of the Insane Asylum, Deaf and Dumb Asylum, Blind Asylum and Female Reformatory.

BLOOMINGTON: INDIANA UNIVERSITY.

The Insane Hospital at Logansport was opened in 1888, and has 360 inmates. The Eastern Insane Asylum is at Richmond. Another hospital for the insane is at Evansville. The School for the Feeble-Minded (340 inmates) is at Fort Wayne. The Soldiers' and Sailors' Orphans' Home at Knightstown has 340 inmates.

Education has advanced amazingly since 1870, and has awakened a high enthusiasm among its

officers. The permanent school-funds amount to $10,000,000, and the value of school property exceeds $15,000,000. Three fourths of the school population is enrolled as at its studies. The ratio of illiterates falls below one in 1,100. The State Normal School at Terre Haute has 800 pupils, and there are other public normal schools at Indianapolis and Covington. The private normal schools are at Valparaiso, Danville, Ladoga, Mitchell, Richmond, College Hill and Angola. DePauw University was founded at Greencastle, in 1837, under the name of Indiana Asbury University, in a rented two-room building, with four teachers. In 1884, largely through the liberality of the late Hon. W. C. DePauw, of New Albany, a noble endowment of over $450,000 was raised, and the university took the name of its benefactor. It is supervised by the four Indiana conferences of the Methodist Episcopal Church. The grounds cover 150 acres and there are ten buildings. DePauw has 40 instructors and 900 students, in a group of schools of arts, law, theology, didactics, music, military science and preparatory studies, each with an independent faculty, the chancellor and president being at the head of all and of each. There are 270 students in the college, 70 in theology and 24 in law. The school of military science and tactics has 180 uniformed cadets.

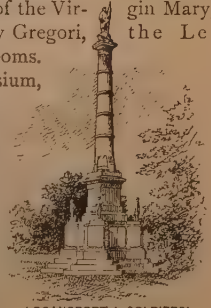


LAFAYETTE: NEW ELECTRICAL LABORATORY, PURDUE UNIVERSITY.

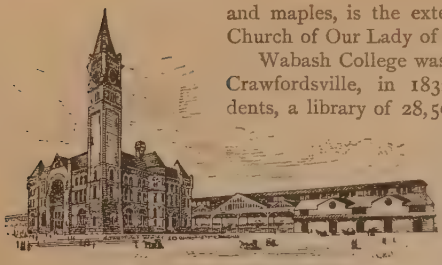
Purdue University is the great land-grant college of Indiana, where 400 students are carefully taught in mechanics and engineering, and various industrial, agricultural and scientific branches. It was founded in 1874, at Lafayette, and stands high among scientific schools. Indiana University at Bloomington is supported entirely from the public funds, and 104 high schools are commissioned to prepare and examine students for admission and free tuition. The courses are elective, in 15 departments, with a law-school besides. The campus contains 20 acres of high and commanding ground near Bloomington, with maple and beech groves, amid which stand Wylie, Owen and Maxwell Halls, the observatory and the handsome fire-proof Library building, of white limestone. There are no dormitories.

INDIANAPOLIS: YOUNG MEN'S CHRISTIAN ASSOCIATION.

When Indiana was admitted to the Union, in 1816, Congress set apart a township of land "for the use of a seminary of learning." The State Seminary received its charter in 1820, began work in 1824, became Indiana College in 1828, and expanded to a university in 1838. It now stands among the foremost schools of the West, with thirty instructors and 300 students (278 of whom are Indianians). The University of Notre Dame, the chief Catholic school in the West, was founded in 1842, by the Very Rev. E. Sorin, a mile and a half north of South Bend, and close to St. Joseph's and St. Mary's Lakes and St. Joseph River. The main building, with its noble dome crowned by a statue of the Virgin Mary, surrounded by electric lights, contains many historical frescoes by Gregori, the Lemonnier Library of 30,000 volumes, and dormitories and society rooms. Music Hall, the great Science Building, Sorin Hall, the Gymnasium, the Infirmary and the Gothic church (with 33 bells, the famous "Chimes of Notre Dame") are all modern and handsome buildings with pleasant surroundings. The minims (students under 13 years) occupy St. Edward's Hall, and are taught by Sisters of the Holy Cross. They form a company of cadets, while the older students compose the battalion of Hoyne Light Guards. The university has classical, scientific, civil-engineering and commercial courses, and a three-years' law course. It has 700 students, mostly from outside of Indiana, and including a number from abroad. A mile from Notre Dame, by a beautiful avenue of poplars



LOGANSPORT: SOLDIERS' MONUMENT.



INDIANAPOLIS: UNION RAILWAY STATION.

and maples, is the extensive St. Mary's Academy, with the new Church of Our Lady of Loretto.

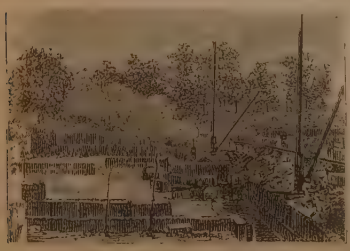
Wabash College was founded by the Presbyterian Church, at Crawfordsville, in 1832, and has 13 instructors and 400 students, a library of 28,500 volumes, and the commodious modern buildings of Centre Hall (chapel, library and lecture rooms), Peck Scientific Hall, and the Hovey Museum. South Hall was built in 1834. Earlham College is a Friends' school at Richmond, with 144 students. Among other Indiana colleges are Franklin (Baptist), Ridgeville (Free Baptist), Hanover (Presbyterian), Moore's Hill (Methodist), St. Meinrad's (Catholic), Hartsville University (U. B.), Union Christian (at Merom) and Butler University (Christian), near Indianapolis.

Rose Polytechnic Institute, at Terre Haute, was founded by Chauncey Rose in 1874 (and opened in 1883) for the higher education of young men in engineering, and has a four-years' course, free to Vigo-County students. There are 16 professors and instructors and 141 students, with three buildings, on a pleasant campus of ten acres.

Divinity schools are attached to DePauw University (M. E.), Union Christian College, at Merom (Christian), Concordia College, at Fort Wayne (Lutheran) and St. Meinrad's College (Catholic). There are law schools at Notre Dame and Greencastle. Indianapolis has two regular medical colleges and eclectic, physio-medical and dental schools. Lafayette has a college of pharmacy, and Fort Wayne has a college of medicine. In these professional schools 100 men instruct 430 students.

BEDFORD: HOOSIER STONE CO.'S MILL.

Indiana Limestone.—At Bedford there are some 19 quarries, yielding an enormous quantity of exceedingly valuable building stone, popularly known as the Bedford limestone, also often spoken of as Indiana limestone. It is an oölitic limestone, similar to the Portland oölitic limestone, of which St. Paul's Cathedral in London is built, and which is said to be the best building material known. It is also similar to the Caen stone of France. It is said never to break or to crack, and to have an elasticity which makes it of especial value in all climates where there are changes of temperature. It contains about 98% pure carbonate of lime. There are two colors in this stone, a buff and a blue. A United-States Government test shows it to be 20% stronger than the English Portland oölitic. It is therefore no wonder that this stone has been made of use in some of the most notable structures, such as the Auditorium, in Chicago; the New-York *Times* building, the Emigrant Industrial Savings Bank, the Mutual Life Insurance Company, and the Vanderbilt residence, in New-York City; the Girard Life-Insurance and Annuity Company and the Singerly Building, in Philadelphia; the Indiana State Capitol; the New-Orleans Cotton Exchange; the post-offices at Louisville and Detroit; the Soldiers' Monument at Logansport; the bridges at Cairo and St. Louis; and the Algonquin Club, at Boston. The foremost quarries of this Bedford stone are those operated by the Hoosier Stone Company, which owns 200 acres, whence, in

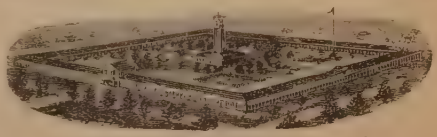


BEDFORD: HOOSIER STONE QUARRY.

eight years, they have been able to exhaust only about 1½ acres, the estimated product being about 2,000,000 cubic feet to the acre. These quarries have been developed chiefly under the guidance of Wm. C. Winstandley. And the Bedford stone has been the main cause of building up the thriving little city of Bedford.

INDIANAPOLIS: INDIANAPOLIS NEWS BUILDING.

The Newspapers of Indiana are about 650 in number. *The Indianapolis News*, the leading paper of Indiana, holds a place that might be called unique. It was started as an independent journal upon definite lines, and during its whole career has clung tenaciously to its policy, which, tersely stated, is: "Tell the truth without fear or favor, and be honest with your patrons." Its editorial and business departments have been conducted on these principles, and the result is an admitted circulation, proportioned to population, larger than that of any American daily, and an influence that is phenomenal in its reach and power. It has followed a straight course without a thought whether it would pay or not; it never has been a time-server or a trimmer, and even its bitterest opponents concede that *The News* believes what it says. Its business methods have been such that its owners have nothing to regret or be ashamed of, and in its undeviating adherence to the one-price system it stands in a comparatively small class. It goes without saying that *The News* has had the enterprise and professional skill which are essential in placing any business at the head, particularly in establishing a first-class journal in the face of the great competition of the day. Having deserved the public confidence, it has gained it, and keeps it. *The News* was established in 1869 by John H. Holliday, who has controlled it ever since. It was the first two-cent paper started after the war west of the seaboard, excepting at Pittsburgh, and became the pioneer of the Western afternoon newspapers, which have almost revolutionized American journalism. *The News* is the largest and most costly daily in Indiana, its smallest issue being a quarto of 56 columns. It employs an array of talent not equalled by any other Indiana paper, and has all the modern facilities for the making of a great newspaper.



JEFFERSONVILLE: QUARTERMASTER'S DEPARTMENT.

National Institutions.—The United-States Arsenal, on a hill east of Indianapolis, has several substantial buildings on a pleasant reservation of 76 acres. It is a depository of war material, and dates from 1863. The Jeffersonville depot of the Quartermaster's Department is the general supply-depot of the United-States Army, and sends clothing and equipage to all the military posts. The buildings form a quadrangle 800 feet square, enclosing a lawn of 18 acres, and overlooked by a tall central tower. They were erected in 1871–4, in a locality central for the Union, near large manufactories and railroads, and the seat of important Government departments in 1861–5.

The Marion branch of the National Soldiers' Home was built in 1889–90, at Marion, and has barracks for 1,000 veterans.

Indianapolis has a magnificent soldiers' monument, 265 feet high, with several colossal bronze statues, trophies of arms, and other adornments. In the same city are statues of celebrated Indianians — Vice-Presidents Colfax and Hendricks, and War-Governor Morton — and other interesting memorials.

KNIGHTSTOWN: SOLDIERS' AND SAILORS' ORPHANS' HOME.

Railroads came slowly to Indiana, which had but 45 miles as late as the year 1845. But now the State is crossed in every direction by their lines, including nearly 7,000 miles of track, assessed at $65,000,000. At Indianapolis, Fort Wayne and various other points, the railways converge like wheel-spokes, the great routes from the Mississippi Valley to the Atlantic coast intersecting the north and south lines. The Monon Route (the Louisville, New-Albany & Chicago Railroad) from Chicago to Kentucky and the South, traverses the entire length of the State. The Wabash & Erie Canal, from Toledo to Evansville, 476 miles, is the longest in the Union, part of it being held by slack-water navigation on the Maumee and Wabash. The section between Lafayette and Fort Wayne has fallen into disuse. The Whitewater Canal runs from Lawrenceburg on the Ohio to Hagerstown.

INDIANAPOLIS: INDIANA NATIONAL BANK.

Finance.—The true value of property in Indiana is not far from $1,800,000,000, and the public debts of all kinds fall below $20,000,000. The Bank of the State of Indiana for many years controlled the financial policy of this region, and its Indianapolis branch (opened in 1857) was the oldest banking corporation in the capital city. After a successful career this institution, in 1865, became merged into the Indiana National Bank, with the same men as officers and the same lines of business, and the added advantage of a national-bank charter. The resources of the Indiana National Bank now reach nearly $4,000,000. The capital paid in is $300,000, and there are $425,000 in the surplus fund and undivided profits. Since Volney T. Malott's accession to the presidency, in 1882, the business has quadrupled, and the stock has risen to a high figure, while the bank has grown to be recognized not only as the largest National bank in the State, but also as one of the strongest and most conservative, yet progressive and energetic institutions of Indiana.

The Manufactures of Indiana have increased over 1,000 per cent. in invested capital and yearly products, since 1860. They number above 8,000, with 70,000 operatives and a capital of $65,000,000. Much of this increase is due to the discovery of natural gas, and its use as fuel for factories, at Muncie, Kokomo and other fast-growing cities in the "gas belt," where a great variety of manufactures are flourishing. This wonderful product of the earth is piped to 75 cities and towns, and results in a saving of above $5,000,000 a year, besides being cleaner and more easily manageable than other fuel. It is also in general use for heating and lighting dwellings, and for other domestic purposes. If the supply of natural gas is not exhausted, it will be of immense value to Indiana, and cause the development of large manufacturing interests.

An idyll of industry appears in the story of the Studebaker Bros. Manufacturing Company. The brothers composing the firm were originally two; afterwards two more were added: and three years ago the number was reduced by the death of the younger brother, leaving as the leading members of the company, Clem Studebaker, president, J. M. Studebaker, vice-president, and Peter E. Studebaker, treasurer. The business was started in South Bend, in 1852, on a total capital of $68, together with a thorough knowledge of blacksmithing, which the brothers had learned at their father's forge in Ohio. During the first year the output was two wagons; now 1,500 workmen and numberless ingenious machines, which perform the work faster and vastly better than

SOUTH BEND: STUDEBAKER BROS. MANUFACTURING CO.

it could be done by hand, are employed in the manufacture of all grades of vehicles, from the two-wheel road-cart up to President Harrison's state landau. The wagon-works and lumber-yards at South Bend cover 93 acres; the carriage-works, at South Bend, cover four acres; and the repository and factory for fine carriage-work in Chicago has a front of 105 feet on Michigan Avenue, and a height of eight stories. The Chicago house is the most elegant building of its kind in the world; and all the other factories are substantially and handsomely built of brick, far exceeding in size and extent any other vehicle concern on the globe. Notwithstanding this fact, the increased demand for Studebaker vehicles, which roll in nearly every county of the United States, while thousands have also been sent to South Africa, Australia, Mexico, South America, and other foreign countries, has made necessary additions to the South-Bend works which will approximately double the present productive capacity. The company was incorporated in 1868, with a capital stock of $75,000. The capital stock was increased in 1875 to $1,000,000, which is at this time supplemented by a large surplus.

SOUTH BEND: STUDEBAKER BROS. MANUFACTURING CO.

The opening up of thousands upon thousands of additional acres to cultivation has called for the service of myriads of plows, and one of the foremost suppliers of these has been the Oliver Chilled Plow Works, at South Bend, where a thousand men are employed, on a plant covering 42 acres. The business was founded in 1855, by James Oliver, an Indiana iron-master, who recognized the great need of plows at once cheaper and better than those then in use, and, after years of experimenting, invented the chilled plow, now so famous. The outgrowth of Oliver's little foundry is the largest and best-planned plow-factory in the world. The chilled plow saves the country scores of millions of dollars yearly, in the cost of plowing; and immense savings are also made in Europe and Africa, Asia and Australia, South America and Mexico, to all of which the Oliver plows are exported. Mr. Oliver was born in Liddesdale, Scotland, and brought up in Indiana; and many thousands of his plows are in use in Scotland to-day. The company also makes a large line of steel plows, besides a variety of riding plows; and with hundreds of styles and sizes is well equipped for prairies and hill-sides, vineyards and cotton-fields, lowlands, clay and sandy soils, Texas black lands and South-American pampas.

SOUTH BEND: OLIVER CHILLED PLOW WORKS.

The Dodge Manufacturing Company, at Mishawaka (on the L. S. & M. S. and G. T. R. roads) has a ground plant of 80 acres, with a floorage of 16 acres, lumber yard of 12 acres, and a daily capacity of 600 pulleys. This company has the remarkable record of having originated two of the most noteworthy additions to the mechanics of this generation, viz.: the "Independence" Wood Split Pulley and the "American System of Rope Transmission," which now constitute the specialties of their manufacture. The manufac-

MISHAWAKA: DODGE MANUFACTURING COMPANY.

INDIANAPOLIS: KINGAN & CO., LIMITED.

ture of the "Independence" pulley commenced in 1884, and it has now attained a world-wide celebrity, and in this country it has become the standard of excellence. Its peculiarities are: 1. the compression fastening to the shaft, without set screws or keys; 2. the system of interchangeable bushings, whereby every pulley may be adapted to any shaft. The American system of Rope Transmission substitutes a single endless rope with uniform tension, for the duplicate ropes and uneven tension of the English system. By this system power may be transmitted in any quantity without regard to distance or direction and without loss from slip. Both the pulley and the rope transmission are the subjects of numerous patents.

The development of the pork-packing industry during the time of the civil war induced the foundation of many large establishments in this line. Among these was Kingan & Co., Limited, whose business began in 1863, and has since grown into large proportions. Its headquarters are in Belfast, Ireland, where an Irish provision business is conducted; and there are branch houses at Kansas City (Kan.), New York and Richmond, Va. The works at Indianapolis cover 13½ acres of ground, occupied by a large and valuable plant, including all the latest appliances for successfully conducting the business. A thousand men are employed here. Hogs are bought at local stockyards, brought in by farmers from Indiana and Illinois chiefly. These hogs are manufactured into hams, sides, shoulders, pickled pork and lard, and concomitant products, for all of which this firm enjoys an enviable reputation, in all parts of the world. Kingan & Co., with their extensive ramifications, are said in volume of business to rank second only to Armour & Co., of Chicago, in this important industry.

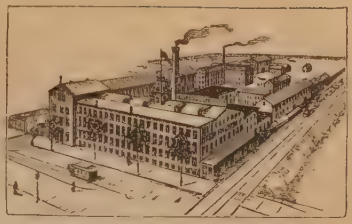
INDIANAPOLIS: PARRY MANUFACTURING COMPANY.

The road-carts used throughout the world are made by the Parry Manufacturing Company of Indianapolis. This establishment dates only from 1882; but has rapidly attained such a development that now it enjoys the distinction of being the greatest producer of road-carts in the world. Its works cover 13 acres of floor space in the heart of the city, and employ a thousand men, and have a capacity of 1,300 finished road-carts a day. The yearly product is 200,000 light, strong and durable road-carts. The welding is done by electricity, and the forging by natural gas. The wood used is second-growth hickory. These airily graceful Parry carts carry one or two riders with the greatest ease. The Parry Company also has a large department devoted to the manufacture of road and spring wagons, for which there is a continuous demand from all over the western country, and elsewhere.

The settlement of the West and South has called for the erection and equipment of great numbers of flour-mills; and back in 1851, Ellis Nordyke & Son founded a company to supply these mills with their machinery. This business is now carried on by the Nordyke & Marmon Company, whose works at Indianapolis cover 13 acres, and employ 600 men. Here is made machinery for milling flour and corn, oatmeal and hominy, and for grain-elevators, and the roller process in flour-mills. This house was one of the first to build flour-mill machinery by machinery, and put up mills complete by contract. It has produced a great number of im-

INDIANAPOLIS: NORDYKE & MARMON COMPANY.

provements in milling outfits, and its small portable mills are extensively used. They are found in nearly all of the States, East, West, North and South, together with the Nordyke & Marmon scalpers, flour dressers, crushers, shellers, degerminators, dryers, purifiers, and all other machines and tools used in milling. This establishment is the largest and most successful in the country, devoted exclusively to the flouring-mill industry.



INDIANAPOLIS : INDIANAPOLIS CABINET COMPANY.

The largest exclusive office-desk-making establishment in the United States is that of the Indianapolis Cabinet Company, at Indianapolis, founded in 1870, and incorporated in 1880. Their saw and veneer mills and other works cover five acres, and employ 400 men, making 60 desks a day. The company has several scores of agents, in the chief cities between Halifax and San Diego, and large warehouses in London. Fully half their product is exported, and the statesmen and merchants of India, China and Japan, of Cape Colony and Natal, do their work at Indianapolis desks. The United-States Government buys about 2,500 of these desks every year. All the South-American republics have supplied them to their legislators; Honduras and Panama receive large consignments, also; and the Mexican Palace is equipped with over a hundred of these desks. The demand from London necessitates weekly shipments thereto. The great virtue of Indianapolis desks (especially for tropical countries) is in their *built-up* construction, with several pieces of wood glued together, with the grain of one crossing the grain of another at right angles, so that the unified table-top or writing-bed cannot shrink or warp or season-crack.

TERRE HAUTE : THE HUDNUT COMPANY.

One of the abounding and beneficent uses of the great corn crop of Indiana and adjacent States is found in the manufacture of a variety of delicious food-preparations, like hominy, grits, clean meal and corn meal, corn flour and pearl meal. Among the leading establishments in this department is the Hudnut Company (capital, $1,000,000), with large plants at Terre Haute and Mount Vernon (Indiana) and Pekin (Illinois), occupying ten acres and employing 275 men. They receive daily about 40 car-loads of corn, and every day turn out 3,000 barrels of white corn goods. This output is sent to all parts of the United States and the Old World, and supplies millions of tables with nutritious and palatable food. The company was established in 1852, by Theodore Hudnut, who is now its president. With its several mills, it is recognized as the largest and most celebrated manufacturer of white corn products in the world. This company is the largest single user of corn for any purpose in the whole country. The Hudnuts in 1880 were the first to utilize the roller process for corn goods.

The extensive works of one of the branches of the American Wheel Company are situated at Terre Haute, and employ a large number of skilled workmen. Another branch of this Company is at Fort Wayne. The Woodburn Sarven Wheel Works, at Indianapolis, are also controlled by the American Wheel Co.

TERRE HAUTE : AMERICAN WHEEL COMPANY'S WORKS.

The making of plate glass presented insuperable difficulties to American manufacturers, until W. C. DePauw entered upon it, about 20 years ago, embarking in this business the large capital and valuable experience of a long and successful career.

The works thus established at New Albany cover 30 acres of ground, and rank among the largest industries in Indiana, and the largest glass-works in America. The plant represents an expenditure of $2,000,000, and a business of $2,000,000 a year, extending from New York to San Francisco. Its yearly capacity is fully 2,000,000 feet of plate-glass, 150,000 boxes of window-glass and 30,000 gross of fruit jars. Sheets of polished plate-glass 150 x 220 inches in area are made here, and much fine and heavy glass for mirrors. There are 132 pots in the New-Albany works and 32 in the Louisville factory, whose product of rough plate-glass is sent to New Albany to be ground and finished. All manner of labor-saving devices are in use, steam-elevators, special water-works, electric lights, and surface and elevated railroads, and the great furnaces, never allowed to cool, make from the fine sand of Indiana glass which has no superior in the world. The property is now owned by the heirs of W. C. DePauw, and leased and operated by the W. C. DePauw Co.

NEW-ALBANY: NEW-ALBANY WOOLEN MILLS.

The New-Albany Woolen Mills are said to be the largest works of the kind west of the Alleghany Mountains. They were founded in 1861, and grew by degrees from small beginnings, until now they have a capital of $400,000 and a large surplus. The product includes fine cotton warps, for the jeans mills of the Southwest; flannels and blankets; and army kerseys, adopted by the United-States Government as the standard grade. The mills are substantial brick structures, equipped with machinery of the latest and best pattern. Among the directors are N. T. and C. W. DePauw, who carry forward the investment made here by the Hon. W. C. DePauw, the eminent business-man, glass manufacturer, and philanthropist, and benefactor of the University at Greencastle. The products of the New Albany Woolen Mills are highly esteemed by the dry-goods trade throughout the country.

The natural-gas belt of Indiana has given rise to several bright manufacturing cities, prominent among which is Kokomo; and 22 miles distant, at the very heart of the gas-belt, is the growing city of Elwood. These cities possess the largest plate-glass works in America—the Diamond Plate-Glass Company. The two plants form the greatest single industry in the State, and have arisen with wonderful rapidity, and reached immediate success; probably, owing to the fact that the natural advantages have been acquired by a group of business men of national eminence in the manufacturing world, who have gone into these enterprises with abundant evidence of faith. The two plants cost $2,500,000, and the buildings cover nearly 25 acres, and give employment to 2,000 skilled operatives. By reason of its natural gas and other natural advantages, and its fine transportation facilities, the Diamond Plate-Glass Company has found an immediate market for its entire out-put, which goes to all parts of the Union. The quality is found to be fully equal to the best French plate-glass, and the Kokomo plate-glass has already become famous for mirrors. Both Kokomo and Elwood have already reached the development of much older cities, in their pretentious public buildings, and schools, churches, water-works, paved streets, electric lights, street-cars and other requisites.

KOKOMO AND ELWOOD: DIAMOND PLATE-GLASS COMPANY.

HISTORY.

The Indian Territory was a part of the Louisiana Purchase from France, in 1803; and at that time the present use of this region was suggested by President Jefferson: "To give establishments in it to the Indians of the eastern side of the Mississippi, in exchange for their present country." President Monroe, in 1824, deplored the evils growing out of the dwelling of the Indians in the Gulf States, their rapid degradation, bloody feuds, and the frequent conflicts between the State and National jurisdictions. He recommended that the tribes should be moved beyond the Mississippi. In 1830, during Jackson's administration, Congress authorized their transfer, at the cost of the Government, to the unorganized part of the Louisiana Purchase, including the Indian Territory. Here they were established on tracts proportioned to the size of each tribe, with titles vested in them, and ample protection. The pledges of the United States to "forever secure to them or their heirs the country so exchanged with them" have been repeatedly broken, and will continue to be disregarded. Kansas has been wrested from them; and for ten years the rising tides of colonization have beaten against this domain of the Indian Territory, and only the presence of active bodies of regular-army troops along the borders has prevented its permanent occupation by myriads of white settlers.

Before the late civil war, the civilized tribes were wealthy and prosperous, with large farms and plantations, and a lucrative trade with the Southern cities. But during the war thousands of the Indians enlisted and fought in the Federal and Confederate armies; and at its close the tribes were reduced to poverty. Since that time they have advanced notably in prosperity and civilization, and now form large farming communities, with a promising degree of political, educational and religious progress. There are, however, many crimes of violence,

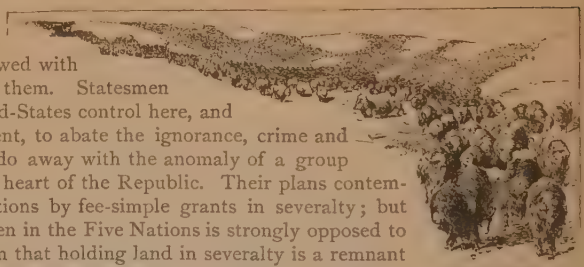
STATISTICS.

Settled at	Old Agency.
Settled in	1827
Founded by	Creek Indians.
Ceded by the United States to the Indians,	1829
Population in 1890 (U. S. Census),	186,390
Five Civilized Nations,	177,682
Indians,	52,065
Colored,	14,224
White,	107,987
Reservation Indians,	8,708
Banks,	3
Area (square miles),	31,400
U. S. Representatives,	0
Militia (disciplined),	0
Post-offices,	279
Railroads (miles),	880
Newspapers,	18
Latitude,	33°35′ to 37° N.
Longitude,	94°20′ to 98° W.
Temperature,	12°— to 99°
Mean Temperature	58°

TEN CHIEF PLACES AND THEIR POPULATIONS.

Lehigh,	3,000
McAlester,	3,000
Krebs,	3,000
Muscogee,	2,000
Purcell,	2,000
Vinita,	1,200
Tahlequah,	1,200
Ardmore,	1,000
Atoka,	800
Eufaula,	500

largely committed by white intruders, and the Indian courts have not been endowed with enough authority to repress them. Statesmen are striving to restore United-States control here, and erect a territorial government, to abate the ignorance, crime and savagery rampant, and to do away with the anomaly of a group of alien governments in the heart of the Republic. Their plans contemplate replacing the reservations by fee-simple grants in severalty; but the influence of the chief men in the Five Nations is strongly opposed to this movement. They claim that holding land in severalty is a remnant of barbaric European feudalism, tending to monopoly, and that now every Indian can occupy and enjoy some part of the tribal domains. Practically, however, there are many rich men in the tribes, possessing great tracts of land, by virtue of their permitted ownership of the improvements thereon. Their criminals, until 1876, the Cherokees either hanged or whipped. In the other civilized tribes criminals are now either shot to death or whipped. Among the Creeks a thief thrice convicted is shot to death.



HERD OF BISON.

Descriptive.—The Indian Territory covers over 20,000,000 acres (a larger area than Maryland or South Carolina), with fertile and well-watered rolling prairies, diversified by abundant timber and rich river valleys, and the great oak-forest of the Cross Timbers, forty miles wide, and running from Texas northward to Kansas, with gigantic trees rising from an alluvial soil of remarkable fertility. The broad Arkansas River and its tributaries, the North and South Canadian, Cimarron, Little Arkansas, Neosho, and Verdigris, and the Red River and its affluents on the south, water the Territory in almost every part. The Arkansas is navigable by steamboats in high water from Fort Gibson to the Mississippi; and steamers ascend the Red River along nearly the entire southern boundary.

One of the chief natural endowments of the Territory is its coal-measures, covering 13,600 square miles, and producing a valuable bituminous coal, great quantities of which are mined every year. Iron and lead, copper and gold, marble and sandstone are found in various localities; and salt appears in springs and marshes.

The Climate is pleasant and equable, with but little snow or cold weather; and the spring opens in February, leading to a long and hot summer. The latitude is the same as that of northern Georgia, and well adapted for corn, cotton and fruits. Fully 400,000 acres are under cultivation in the domains of the five civilized tribes, producing yearly over 4,500,000 bushels of corn, wheat and oats, 400,000 bushels of vegetables, 60,000 bales of cotton, and 175,000 tons of hay, amounting to nearly $6,000,000 a year. They own 800,000 head of live-stock. Among other products are many thousands of woollen blankets and shawls, willow baskets, 8,000,000 feet of lumber, maple sugar, wild rice, fish, hemlock bark, cord-wood and wool.

PREPARING FOR THE SUN-DANCE.

The Missouri, Kansas & Texas Railway runs for 248 miles through the Cherokee, Creek, Choctaw and Chickasaw Nations, from Chetopa (Kan.) to Denison (Texas). The Missouri Pacific operates a line through the Cherokee and Creek Nations from Coffeyville (Kan.) to Fort Smith (Ark.), 170 miles, crossing the Missouri, Kansas & Texas at Wagoner. The St.-Louis & San-Francisco Railway connects southwestern Missouri with Sapulpa, in the Creek Nation. The Frisco also operates a line from Fort Smith (Ark.) through the Choctaw Nation to Paris (Texas). The Choctaw Coal &

Railway Company has a line from South McAlester on the Missouri, Kansas & Texas to near Caston on the Frisco. The Gulf, Colorado & Santa-Fe operates 106 miles of main line through the Chickasaw country, connecting Purcell with Gainesville (Texas). Several other railroads are chartered to build through the Indian Territory.

Government.—The International Council assembles occasionally, having representatives from the five civilized tribes and also delegates from the less advanced Indians of the western region. The last successful Council was held at Fort Gibson, in 1888, there being twenty tribes represented. This assembly favored unification of the Indian governments under a general council, for mutual protection and development, administration of justice and the better conduct of their affairs. Several unavailing attempts have been made to convene the tribal delegates once more, but it is doubtful if another Council will ever be held, until the final one which will open the way to a higher development than is possible under the present tribal organizations. The United-States Government holds the right of eminent domain over the lands of the five tribes, the Indians being fee-simple owners, but not sovereign, though enjoying to some degree the powers of self-government. The United-States Indian Agency for the five tribes is located at Muscogee, and has jurisdiction over all persons, whether Indian or white, residing in the Indian country. Its operations are considerably handicapped by the United-States Courts, and the Indians have not been protected in their treaty rights by the Government for many years. Indeed, the intruding Anglo-Saxon has secured such a strong foothold that it is doubtful if the Government will ever remove the trespassers from the Indian lands. Forty-three Indian policemen are attached to the Agency. These officers are engaged in the suppression of crime, the prevention of the introduction of whisky, and serving orders issued by the Agent.

TAHLEQUAH.

Each of the five civilized tribes is governed by a Principal Chief and a Second Chief, elected for from two to four years; an annual legislature of two houses, elected for from two to four years; and a judiciary system.

Education.—The 220 Indian schools are mainly supported by the five civilized tribes, at a yearly cost of over $300,000, and include high and common and private schools and seminaries. The teachers are mainly Indians, but the text-books are in the English language. Some of the well-to-do Indian families send their children to outside colleges, where they attain high rank. The Indian boys also receive manual training in carpentering, blacksmithing, shoemaking, farming, and stock-raising: and the girls are taught to sew, knit, and make butter. The Christian religion has made great advances among the tribes, and the Baptists have 162 churches and 8,141 members; the Methodists, 52 churches and 8,346 members; the Catholics, 15 churches and 3,800 communicants; and the Presbyterians, 41 churches and 2,400 members; and there are several smaller sects with adherents. In all, there are 317 churches, 537 clergymen, 9,206 Sunday-School pupils, and 25,000 church-members.

MOUND AT CATOOSA.

The most murderous element in the Territory is Arkansas moonshine whisky, brewed in the Ozark Mountains, and called "white mule," because made by white men, and endowed with the destructive powers of the Western mule. It is illegal to sell alcoholic liquor in the Territory, as it is in Maine, but the traffic goes on, despite the strenuous

TAHLEQUAH: OLD SEMINARY.

efforts put forth to stop it. The Indian population is 75,000, including 67,000 in the five civilized tribes, and 8,000 in smaller bands. There are also 60,000 whites, living here under authorization, and a much greater number without legal right. Of the tribesmen, 64,000 wear civilized garments, 45,000 speak English, and 15,000 are farmers. They own 14,000 houses and 178 churches.

The Cherokee Nation in early days occupied a great part of Georgia and the adjoining States, and welcomed Oglethorpe to their shores. The inroads of white settlers upon their lands were met by terrible reprisals, and followed by wars, as a result of which the tribe was moved to the Indian Territory, beginning its settlements near Tahlequah, in 1832. Their greatest man was Sequoyah, who invented the national alphabet. Many of the Cherokees were slaveholders, and went into the Confederate army, but a still larger number enlisted and fought in the National armies. After the war, the Southern Cherokees settled in the Canadian-River section. The seal of the Cherokee Nation shows a seven-pointed silver star, in a round red field, surrounded by a wreath proper, the whole borne on a golden shield.

The Cherokee Nation numbers 30,000 persons, all of whom wear the raiment of civilization, and 18,000 speak English. Nearly 4,000 live by farming, and there are no hunters. Hardly 1,000 are pure-blooded Indians, and 14,000 have more or less Anglo-Saxon blood. There are 27,000 white residents, citizens of the United States. The reservation (of 7,681 square miles) covers the northeastern part of the Territory, and is divided into nine political districts, or counties. Vinita is its business centre, with thirty large stores, and railway outlets in four directions. The capital is Tahlequah, an Indian village in whose centre stands the brick council-house, with the legislative halls and executive offices. The volumes of laws and the constitution are printed in English and also in Cherokee. The Constitution resembles that of New York. Land tenure is according to Henry George's principle, that any one may improve vacant lands for his own use, the people being tenants in common, and acquiring exclusive rights of possession and sale of the improvements on lands that they have improved. The United-States Supreme Court has lately ruled that the Cherokee Nation is not a sovereign state, but a ward of the Republic, which has the right of eminent domain over its lands. The Cherokee Nation has the right, by a decision of the United-States Supreme Court, to determine who are its citizens. There are nearly 5,000 adopted citizens, including 765 Delaware and 550 Shawnee Indians and 1,100 whites. White men marrying Cherokee women may become citizens of the Nation, and may be elected to all offices, except chieftancy. All the local politicians (and there are many) belong to the ring of political societies called the Kee-to-Wah. The Cherokee National Prison is at Tahlequah. There is an asylum for the insane, blind, deaf, dumb, decrepit and poor; and the orphan asylum, at the boiling artesian salt-wells of Grand Saline, has 150 inmates. The Cherokees spend over $80,000 a year on education, their 6,000 children having 2 high schools, 110 common schools, and 15 denominational schools, with costly and perfectly equipped seminaries for boys and girls, where Latin, mathematics and other higher branches are taught. Teachers' institutes are held annually at Tahlequah; and nearly all the teachers are Cherokee young ladies. The girls' seminary is a handsome new brick building in a park of eight

GRAND SALINE: CHEROKEE ORPHAN ASYLUM.

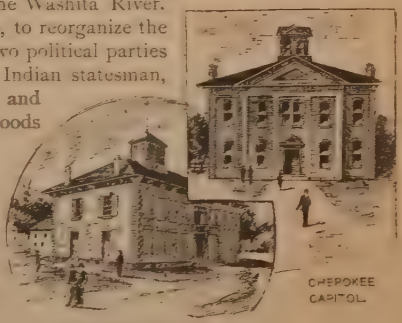
TAHLEQUAH: CHEROKEE NATIONAL FEMALE SEMINARY.

MUSCOGEE INDIAN UNIVERSITY.

acres, crowning a far-viewing hill near Tahlequah. Over 170 Cherokee maidens study here; and those who cannot afford to pay are educated by the tribe, and boarded and provided with text-books. The teachers are nearly all Cherokees. The National seminary for 200 boys is also near Tahlequah, and its building cost over $100,000.

The Advocate, the chief newspaper, is printed partly in Cherokee, and furnished free to Cherokees who do not know English. It is an official journal, supported by the Nation, and publishes the laws, and other official business. The Baptists, Methodists and Presbyterians have 62 churches, mainly supported by the devout Indian women. Among the chief local industries are the raising of live-stock, the growing of corn and cotton, and lumbering.

The Chickasaw Nation dwelt in northern Mississippi and Alabama, until the Government moved them to the Indian Territory, where their reservation lies west of the Choctaw Nation, and borders on Texas. Near its centre are the Table Hills and Fort Arbuckle. Ardmore has valuable coal-fields. The country abounds in grain-farms and stock-ranches, orchards and forests. The Chickasaws number 6,500, including many large landholders and wealthy persons, with the reputation of sharp traders and financiers. The Supreme Court is composed of two full-blood Indians and a half-breed. The Capitol is a great brick building on a hill-top overlooking Tishomingo, on the Washita River. The National Legislature was convened in 1890, to reorganize the militia for defence against non-citizens. The two political parties are the so-called Progressives, under Paul, an Indian statesman, made up of some whites and a few half-breeds; and the Pullbacks, under Byrd, including the full-bloods and many half-breeds. The Chickasaws have 14 common schools and three academies. Full 60,000 whites dwell here.



CHEROKEE CAPITOL.

CREEK COUNCIL HOUSE.

The Creek Nation of Alabama and Georgia was the most powerful Indian confederation in America. They called themselves Muskogees. They were terribly beaten by Gen. Jackson in 1812–15. In 1825 a treaty was entered into between them and the United-States Government, under which 3,000 of them voluntarily removed to the Indian Territory, where, in 1835, they were joined by the rest of the tribe. Here they accepted education in mission-schools, and soon began recovering from the depletion caused by their migration. As a tribe, they were advancing rapidly, having an educational system of their own, when the Secession War broke out. An unsuccessful attempt was made by the Confederate Creeks to prevent the escape of the Unionist party to the Federal lines. Some hard fighting occurred between them, but the latter reached a place of safety in Kansas. Since their reunion in 1866 the tribe has prospered. The Creeks occupy 5,024 square miles of well-wooded and fertile farming land, between the Cherokees and Choctaws, with the Canadian River on the south. They are devoted to cattle-raising, and also produce large crops of corn, wheat, cotton and pecan nuts. Their capital is Okmulgee, where the legislature (made up of the house of kings and the house of warriors) convenes every October; and the Supreme Court also holds its sessions there. The tribe numbers 14,000; and spends $80,000 yearly in sending its young men and women to schools in the States, and on its four boarding-schools and 40 public schools, having also several

PARK HILL: INSANE AND BLIND ASYLUM.

denominational schools. The Indian University, near Muscogee, was founded in 1880, under Baptist auspices, and fits young Indian men and women for the Christian ministry, and teaching. It has a handsome and commodious building. There are also at Muscogee, the Harrell Institute, of the Methodist Church South, and the Presbyterian Mission School for girls; both prosperous schools, and reaching the adjacent tribes, as well as the Creeks. For the last 60 years the Creeks have sent numbers of their boys into the States to school, at the expense of the tribe.

The Choctaw Nation formerly dwelt in southern Alabama and Mississippi, whence they were moved about the year 1830. The reservation, of 10,450 square miles, lies between the Canadian and Red Rivers, bordering on Arkansas and Texas. It is a pleasant and fruitful country, with the Kimishi Mountains in the east, and the Sans-Bois Hills, 1950 feet high. The capital is Atoka. The school property is valued at $200,000; and the yearly expenditures for education are $83,000, divided between four boarding-schools and 170 neighborhood schools. There are also several denominational schools. A newspaper is published at Atoka. The farmers raise considerable quantities of grain, cotton and livestock. The coal-mines at McAlester were opened in 1872 by Jim McAllister, a squaw-man, and are run by the Osage Coal and Mining Company, which pays royalties to the owner and to the Choctaw Nation. The capacity of the shafts is 1,800 tons a day, and there are 80 coke-ovens. More than half of the 1,200 miners are Italians. There are large mines at Caddo, Savanna and Lehigh, with 3,000 whites at the latter place alone. The product of coal has reached 600,000 tons in a year, yielding $100,000 in royalty to the Choctaws, and $900,000 to the men in the mines. There are 15,000 Indians and colored people, and 42,000 whites, in the Choctaw Nation.

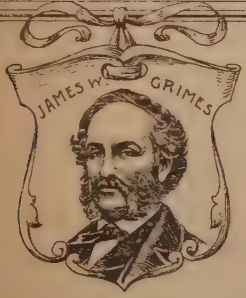
TULSA, IN THE CREEK NATION.

The Seminole Nation, numbering 2,539 persons, was exiled from Florida, in 1842, and occupies a poor and thin-soiled reservation of 312 square miles, between the North and South Forks of the Canadian River, north of the Chickasaw and west of the Creek Nation. The capital is Wewoka, the government being by a first and second chief, and a national council of 14 "band-chiefs," at once a legislature and a supreme court. The Seminole finances are in splendid condition. There are but few whites among the Seminoles, who are the most peaceful and law-abiding of the Five Nations. They have five free schools and three mission-schools, and one of the finest school-buildings in the Indian Territory.

The reservation Indians in the extreme northeast, among the foothills of the Boston Mountains, include 154 Quapaws, from Arkansas; 160 Peorias and Kaskaskias, and 137 Ottawas, from Illinois; 288 Wyandottes, 67 Miamis and 79 Shawnees, from Ohio; 84 Modocs, from Oregon; and 255 Senecas and Cayugas, of the old New-York tribes. This domain is purely agricultural, mostly allotted in severalty, and crossed by the St.-Louis & San-Francisco Railroad.

ATOKA: CHOCTAW COUNCIL HOUSE.

The future destiny of the Indian Territory is filled with uncertainty, owing to its singularly mixed population, and the intense national spirit which has been developed in the civilized tribes. If in the course of time it shall advance to the honors of Statehood, the progress of the people will be more rapid, and a prosperous commonwealth may arise, with Indian senators representing the ancient aboriginal clans of the Gulf States in the halls of the American Congress, and defending the rights of their people.



HISTORY.

Father Marquette and Joliet visited Iowa in 1673, and passed on. The country belonged to the huge Province of Louisiana, claimed and held by France, and ceded to Spain by that nation in 1763. Given back to France nearly 40 years later, it was presently ceded by that power to the United States, together with all the western Mississippi Valley. In 1804 it belonged to the District of Louisiana, under the jurisdiction of Indiana. A year later it was added to the new Territory of Louisiana; and in 1812 it belonged to the Territory of Missouri. From 1834 to 1836 Iowa pertained to Michigan, and from 1836 to 1838 to Wisconsin. Then the Territory of Iowa came into being, including also Minnesota and Dakota, between the Mississippi and the Missouri and White-Earth Rivers. These political changes were unknown to the inhabitants, who were mainly wild Indians — the Iowas and Pottawatomies in the west, the Sacs and Foxes in the east, and the Sioux and Winnebagoes in the north. The Iowas were a tribe of the Dakota family, calling themselves Bahucha, and receiving the name of Iowa from their enemies, the Algonquins. They formed eight clans: the Wolf, Bear, Eagle, Buffalo, Pigeon, Beaver, Elk and Snake, each dressing their hair distinctively. The last four clans are extinct. They dwelt in northern Iowa, and owned the great pipestone quarry. In 1803 they numbered 1,500, and defeated the Osages and Cherokees, but were mercilessly beaten by the Sioux. The chiefs Wyingwaha and Mahaska (White Cloud) made treaties with the United States; and, in 1836, the tribe was moved west of the Missouri. Intemperance and disease have reduced them to about 200 persons. The first white pioneer of Iowa was Julien Dubuque, a French-Canadian trader, who dwelt from 1788 to 1810 among the Indians at the lead-mines, near the city now bearing his name.

STATISTICS.

Settled at	Burlington.
Settled in	1835
Founded by	New Englanders.
Admitted as a State,	1846
Population in 1860,	674,913
In 1870,	1,194,020
In 1880,	1,624,615
White,	1,614,600
Colored,	10,015
American-born,	1,362,965
Foreign-born,	261,650
Males,	848,136
Females,	776,479
In 1890 (U. S. Census),	1,911,896
Population to the square mile,	29.3
Voting Population,	416,658
Vote for Harrison (1888),	211,598
Vote for Cleveland (1888),	179,877
Net State Debt,	0
Assessed Valuation of Property (1890),	$478,000,000
Area (square miles),	56,025
U. S. Representatives (1893),	11
Militia (Disciplined),	2,731
Counties,	99
Post-offices,	1,795
Railroads (miles),	8,366
Vessels,	79
Tonnage,	10,087
Manufactures (yearly),	$70,045,926
Operatives,	28,372
Yearly Wages,	$9,725,902
Farm Land (in acres),	25,555,163
Farm-Land Values,	$507,430,227
Farm Products (yearly)	$136,103,473
Public Schools, Average Daily Attendance,	304,856
Newspapers,	878
Latitude,	40°36′ to 43°30′ N.
Longitude,	89° 5′ to 96° 31′ W.
Temperature,	—32° to 104°
Mean Temperature (Des Moines)	49°

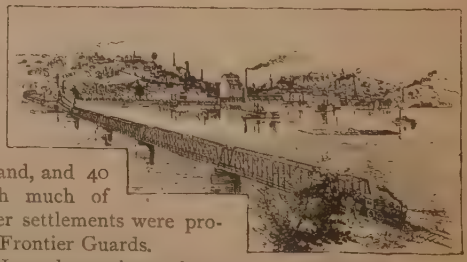
TEN CHIEF CITIES AND THEIR POPULATIONS (CENSUS OF 1890).

Des Moines,	50,093
Sioux City,	37,806
Dubuque,	30,311
Davenport,	26,872
Burlington,	22,565
Council Bluffs,	21,474
Cedar Rapids,	18,020
Keokuk,	14,101
Ottumwa,	14,001
Clinton,	13,619

In 1830 the Sioux annihilated a large party of the Sacs and Foxes (including ten chiefs) on the Mississippi River, near Dubuque, and the people of those tribes fled in panic from their ancient homes. Then began the first wave of immigration, the white miners crossing at various points, and occupying the deserted villages and mines. They were ejected by the United-States troops under Lieut. Jefferson Davis, by order of Col. Zachary Taylor, who went into garrison until the formal cession of the Territory by the Sacs and Foxes. This was made in 1832, to defray the cost of the Black-Hawk War, and included the eastern strip of Iowa, 300 miles along the Mississippi, and 50 miles wide, running northward from Missouri. In 1836–7 other cessions were made. In 1842 Gov. Chambers consummated the New Purchase, paying the Sacs and Foxes $1,000,000 for 15,000,000 acres of rich land. About 350 members of the tribe now dwell on a small reservation on the Tama River, engaged in farming.

DUBUQUE.

Allured by far-spread reports of the extraordinary beauty and fertility of Iowa, immigrants crossed the great river by thousands, coming from New England and New York by the Erie Canal and the lakes, and from Ohio and Illinois, Kentucky and Missouri, by the way of the rivers. The strong set of this tide soon gave population enough for Statehood, which was for several years withheld, because the Iowans refused to accept the border-line proposed by Congress, which cut them off from the Missouri River. Dubuque, the earliest permanent village, was founded in 1833. The first settlements fringed the Mississippi, and crept slowly up the Des Moines, followed by a similar advance along the Missouri, long afterward. The Spirit-Lake country was settled by Minnesotans in 1856–7, but they were speedily attacked by Inkpadootah's Sioux band, and 40 or more suffered massacre. Through much of 1858–60 the Spirit-Lake and Sioux-River settlements were protected from hostile Indians by the Iowa Frontier Guards.


BURLINGTON.

The government and diplomacy of Iowa have always been conducted with wisdom and conservatism, and the Indian tribes have been removed, internal improvements advanced, immigration and capital secured, and education richly endowed without the ravages of war or the impairment of financial credit. The State has no debt.

The chief modern questions in Iowa have been the prohibition of the manufacture, importation and sale of liquor, and the control by the State Railroad Commissioners of the railroads. The prohibition liquor laws have been very fully sustained by the Iowa Supreme Court, and nearly all points by the United-States Supreme Court. The law is strongly entrenched in the judgment of the people, excepting in the larger cities, where a greater proportionate foreign population helps shape public sentiment adversely to the law. The reaction against prohibition, in 1889, arose from a belief in the inefficacy and inexpediency of the policy. The legislature has enacted a law giving the railway commissioners power to make such rates as they may see proper, and which, when promulgated by the

DAVENPORT

board, shall be *prima facie* evidence of reasonable rates. It goes farther, and empowers them to compel joint rating and joint billing of freight between two or more lines of road. This legislation has given Iowa lower rates than any of the surrounding States. The local jobbers and manufacturers have profited largely by it, and are enabled to meet the competition of the jobbing houses of the large cities as they have never been able to do before. As a result, Des Moines, Sioux City, Ottumwa, Cedar Rapids and the Mississippi-River cities, Dubuque, Davenport and Burlington, have become extensive jobbing centres.

CLEAR LAKE.

The Name of the State, according to Le Claire, the famous half-breed interpreter, means, "Here is the place to dwell in peace." This definition is now generally accepted as the best. Others derive it from *Ah-hee-oo-ba*, "The Drowsy Ones." Shea says that *Ajawa* meant "Across," and was applied by the Algonquins to the tribe beyond the Mississippi River. Another account says that the word signifies "Gray Snow," because the Iowa tribe separated from its parent tribe, the Omahas, during a winter storm, when the white snow was mingling with the gray sands of the shore. Iowa is often called THE HAWKEYE STATE. The name first appeared in James G. Edwards's *Fort-Madison Patriot*, of March 24, 1838: "If the division of the Territory is effected, we propose that the Iowans take the cognomen of 'Hawkeye.' Our etymology can then be more definitely traced than that of the Wolverines, Suckers, Gophers, etc., and we rescue from oblivion a memento, at least, of the name of the old chief, Black Hawk." Mr. Edwards moved his office to Burlington, and founded the *Hawkeye* newspaper, now one of the most influential in the West.

SPIRIT LAKE.

The Arms of Iowa show a sheaf and a field of standing wheat, with a sickle and other farming utensils; on the left side, near the bottom, a lead-furnace and a pile of pig-lead; on the right side, the citizen-soldier, standing before a plough, supporting the American flag and liberty-cap with his right hand and a gun with his left. The Mississippi River is in the back-ground, with the steamer *Iowa* under way. An eagle appears above, holding in his beak a scroll, with the following inscription: "Our liberties we prize, and our rights we will maintain." This device was adopted in 1847. The Secretary of Iowa wrote to Admiral Preble: "This State has no State flag other than the Stars and Stripes, a large interest in which she claims."

The Governors of Iowa have been: *Territorial* — Robert Lucas, 1838–41; John Chambers, 1841–5; James Clark, 1845–6. *State* — Ansel Briggs, 1846–50; Stephen Hempstead, 1850–4; James W. Grimes, 1854–8; Ralph P. Lowe, 1858–60; Samuel J. Kirkwood, 1860–4 and 1876; William M. Stone, 1864–8; Samuel Merrill, 1868–72; C. C. Carpenter, 1872–6; Joshua G. Newbold (acting), 1876–8; John H. Gear, 1878–82; Buren R. Sherman, 1882–6; William Larrabee, 1886–90; Horace Boies, 1890–4.

Descriptive. — Iowa is in the great prairie-belt, and between the Mississippi and Missouri Rivers, whose water-shed in the northwest, the Plateau du Coteau des Prairies, is 800 feet high, falling away to the southeast, with short and rapid streams, the Chariton (250 miles long), Nodaway (200), Grand (300), Nishnabotna (220), Little Sioux (300), and Big Sioux, flowing

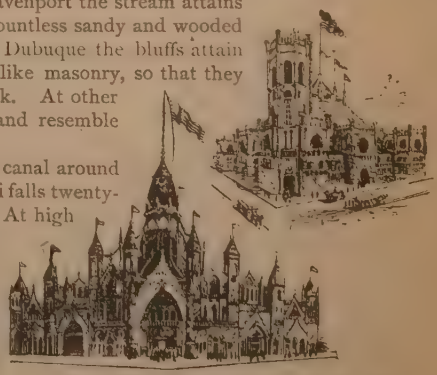
BLUFFS OF THE MISSISSIPPI.

EAST OKOBOJI LAKE.

to the Missouri; and other rivers, the Des Moines (550), Skunk (275), Cedar (400), Iowa (375), Wapsipinicon (200), Maquoketa (175), Turkey (160), and Upper Iowa (150), running southeast to the Mississippi. These watercourses begin in broad and shallow valleys, and then flow through bluff-bound bottom-lands, in and around which are the chief woods in the State. The Missouri at Council Bluffs is 198 feet higher than the Des Moines at Des Moines, and 425 feet higher than the Mississippi at Davenport. The waters of Iowa abound in pike, bass, sturgeon and catfish.

The Missouri bottoms from Missouri to Sioux City are 150 miles long and from five to 20 miles wide, and of unwearying fertility. The valley of the Upper Iowa is narrow and picturesque, and bordered by bluffs 300 feet high. The scenery along the Mississippi is of great beauty, with bold bluffs and headlands all the way from Keokuk to Dubuque and the Minnesota line. The deep blue of the mighty river contrasts effectively with the limestone cliffs and verdant hills. Above Davenport the stream attains in high water a width of two miles, with countless sandy and wooded islands adorning its placid surface. Above Dubuque the bluffs attain noble proportions, and show stratifications like masonry, so that they simulate Cyclopean walls of sheer white rock. At other points, the shores are roofed with green, and resemble the broad downs of England.

The chief national work in Iowa is the canal around the Des-Moines Rapids, where the Mississippi falls twenty-four feet in twelve miles, over a rocky bed. At high water steamboats may pass up or down without difficulty, but at low water the canal is used. It is nine miles long, and cost in the vicinity of $4,500,000.



SIOUX CITY: CORN PALACES OF 1889 AND 1890.

Navigation is possible on some of the Iowa rivers, but the interlacing of railroads in every direction makes it of little value on the minor streams. In the northwest, 1,400 feet above the sea, are scores of beautiful crystalline lakes, like those of Minnesota, with gravelly beaches, and varying greatly in size. This region affords good hunting and fishing, and is much visited in summer. The favorite locality is Spirit Lake, 14 miles around, with heavy forests along the west, and several minor lochs on the east, including the beautiful East and West Okoboji lakes, each two leagues long, and united by a narrow strait. They are of great depth, and surrounded by picturesque hilly and wooded shores, along which nestle summer lodges and cottages and large hotels. The name of Spirit Lake is a translation of *Minne-wakan*, the ancient Sioux title. Walled Lake, also in northern Iowa, extends over 2,800 acres with its clear, cold waters, hemmed in by a singular dike of stones, six feet high and from five to 15 feet wide, around which grows a half-mile belt of oaks. The lake is higher than the surrounding lowlands. Clear Lake and Storm Lake cover several square miles, and rest in the open prairie. The former is a favorite locality for camp-meetings and Sunday-school conventions, and summer-cottages. A summer-resort recently opened is Bluff Park, on the high bluffs at Montrose, where a magnificent view of the

MARSHALLTOWN: SOLDIERS' HOME.

Mississippi can be had, looking north. At this point the river widens out and is dotted with islands. Across the river is Nauvoo, once the home of the Mormons. The Iowa Chautauqua has also met at Colfax, near the famous mineral springs, and within view of the golden dome of the capitol.

MISSOURI-RIVER VALLEY.

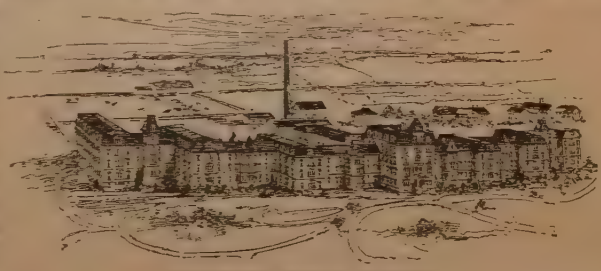
The Iowa prairies are not flat, but undulating, with graceful curves and rounded outlines, and an exhilarating pound air and a wealth of floral beauty. Many of them are fringed by shore-like woodlands, with promontories and islets of dark forest thrown into the delicate green of the plain. Less than one per cent. of this great State, nearly as large as Ireland and Scotland together, is unadapted to agriculture. There are neither swamps, deserts nor mountains.

Most of Iowa is covered with a heavy dark drift loam, over a foot deep, and of marvelous richness, the choicest part of the State being the parallel valleys of the Des Moines and Iowa. The northern lands are of less value. The bluffs of the west are of yellow siliceous deposits, immensely deep and very fertile, with unusually picturesque outlines. The tireless fertility of the prairies is partly due to the old Indian custom of burning them over every autumn. In the course of centuries the soil became almost a bed of wood ashes.

MORMON MONUMENT AT MT. PISGAH.

The great frontier rivers are bordered by bottoms from one to ten miles wide, hemmed in by bluffs; and in the north oak-crowned mounds and hills rise over the rolling grassy plains. Above the bluffs the undulating table-lands extend for vast distances, natural meadows of unrivalled beauty, covered with coarse but nutritious grasses, and adorned with roses, jessamines, violets, and other wild flowers. Here and there occur pleasant groves and hazel-thickets, giving an agreeable diversity to the peaceful scene. The western part has less woodland than the east, but much progress has been made in tree-planting all over the State. The timber product is valued at $3,000,000 a year, and has in the past included vast quantities of black walnut. The geological history of Iowa records a long-past time when it was part of a lake 500 miles across, traversed by the Missouri. After unnumbered ages its muddy bed was upheaved, and now forms the prairies, its fine siliceous powder enriched by vegetable remains.

Farming.—Small grains and vegetables abound all over the State. Corn flourishes in the south and along the valleys, especially of the Nishnabotna and Nodaway; wheat, in the Cedar-River country; and vegetables on Muscatine Island. The blue-grass region of the southwest and the wild prairies export vast quantities of baled hay, and support some of the best American live-stock, with large dairy products, horse-farms, and abundant fruits. It is a lovely pastoral country, dotted all over with pleasant villages and hamlets, and abounding in crystalline streams. Johnson and Muscatine counties are famous for their great herds; and the Muscatine watermelons have a wide reputation. More than half the inhabitants of Iowa are farmers, and the results of their labors exceed $365,000,000 yearly. The crop of corn has reached 322,000,000 bushels in a year; of wheat, 37,000,000; of oats, 80,000,000; of rye,



INDEPENDENCE: HOSPITAL FOR INSANE.

2,000,000; of barley, 5,000,000; of potatoes, 20,000,000. Over $3,000,000 worth of fruit has also been raised in a year. In Iowa corn is king, and is glorified in the great Corn Palace at Sioux City, an immense castellated structure built yearly, and covered outside and decorated inside with corn. Iowa produces more corn than any other State, having passed Illinois and Missouri by many million bushels. The canneries of Iowa put up yearly more than 7,000,000 cans of corn and 1,500,000 of tomatoes, besides other food-products. The production of hay, for a year, has exceeded 7,000,000 tons (two thirds timothy, and the rest prairie-grass), with 200,000 bushels of seed, the entire product standing at $33,500,000. The Blue-Grass Palace at Creston annually typifies this industry. These vast crops are produced in spite of the occasional visits of myriads of locusts and other winged or crawling destroyers (now less numerous than formerly), and of the multiplication of thievish English sparrows. The damage wrought to the crops of Iowa by chinch-bugs has reached $20,000,000 in a single year (1887). Iowa is the foremost State in producing swine, with 4,200,000 head, valued at $28,000,000, and including many Chester-Whites, Poland-Chinas, and Berkshires. It is the second State for milch cows (1,200,000), and other cattle (2,100,000), with thousands of short-horns, Herefords, Polled-Anguses and Jerseys, the whole valued at $80,000,000. In horses it stands third, with over 1,000,000 head, worth $74,000,000, and including several thousand pedigreed draft-animals, Percherons and Clydesdales. The trotting stock of north-eastern Iowa has a wide fame. Sheep-raising has fallen off very much, partly on account of the ravages of dogs. There were 1,500,000 sheep in 1867, but 20 years later these had been reduced to 270,000. The amazing richness of the deep alluvial prairies of the Missouri Valley in Iowa is especially manifested in the successful growing of corn and live-stock. Broad areas of Iowa, Wisconsin, Wyoming, Utah, Minnesota, Nebraska, and the Dakotas find at Sioux City their great packing centre, where their cattle and hogs are slaughtered and dressed for consumption. The investment in this packing plant exceeds $3,000,000, and the total value of its yearly product is $30,000,000. The immediate cause and direct strength of these packing houses is the Union Stock-Yards, covering 250 acres, with every possible accommodation for receiving and feeding live-stock. Over a million head reach these yards yearly, and they are mainly of high grade, yielding dressed products of great excellence. Already through the intervention of this establishment Sioux City has won the rank of the fourth pork-packing centre of the world, and its investments in this industry are increased yearly. The Union Stock-Yards Company of Sioux City has a capital of $2,500,000, and it has been regarded as a successful enterprise from the start.

COUNCIL BLUFFS: CHAUTAUQUA UNIVERSITY.

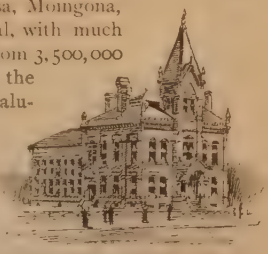
Iowa is the second State in the production of butter (52,000,000 pounds), and fourth in cheese (1,500,000 pounds); their aggregate (with milk) reaching $15,000,000. The poultry and eggs mount up to $5,000,000 yearly, and are sent all over the Northwest.

SIOUX CITY: UNION STOCK-YARDS.

The Climate is very healthful. The winter seasons are severe but equable, with almost continuous north and north-west winds sweeping across the prairies. In summer the constant west and south winds impart a fresh life to the air, so that, though the heat is greater than in New England, its effects are less oppressive. The autumns are clear, warm and dry; and the perfume of the prairie fires then overhangs some of the rural

counties. The singular purity and dryness of the air makes Iowa a sanitarium for people suffering from lung-diseases.

Minerals. — There are 20,000 square miles of bituminous coal deposits, which are worked at Des Moines, Centreville, Ottumwa, What Cheer, Oskaloosa, Moingona, Fort Dodge and elsewhere. It is a fat and close-burning coal, with much water. The 400 mines employ 12,500 men, producing yearly from 3,500,000 to 4,000,000 tons of coal. The coal-measures extend across all the southern counties up to the middle of the State, but the most valuable mining region is the Des-Moines Valley, from Keokuk to Fort Dodge. The veins are from three to eight feet thick, and within 100 feet of the surface. The Coal Palace at Ottumwa typifies this industry. Northern Iowa contains 30,000 acres of peat-bogs, in beds from four to ten feet deep, and of excellent quality. In the northeast great quantities of lead and zinc are found, in pockets in the limestone. At one time $1,000,000 worth of lead was shipped yearly from Dubuque, but this industry is now nearly quiescent. Iron has been found in small deposits. Iowa also produces coral limestone, dolomite, sandstone, and other valuable building stones, in great quantities. Iowa marble was chosen for the entrance-hall to the Boston Public Library. Large quantities of lime are made at Fort Dodge, Springvale and Mitchell. The gray gypsum of Fort Dodge covers 18 square miles, with a thickness of 25 feet. The potters' clay and fire-clay of Iowa give material for scores of large potteries and brick-yards. The State has 128 quarries, employing 2,000 men.



CEDAR RAPIDS: MASONIC LIBRARY.

GRINNELL: IOWA COLLEGE.

Government. — The Governor and executive officers are elected by the people for two years. The General Assembly meets biennially, and includes 50 senators and 100 representatives. The Supreme Court has five justices, elected by the people for six years. The State Capitol, dedicated in 1884, cost nearly $3,000,000. It has a foundation of Iowa boulders, upon which rises a superstructure of yellow and gray Missouri stone, covered by a dome 295 feet high, over a grand rotunda. It is enriched by colored marbles, frescoes and carved mahogany.

The State penitentiaries are at Fort Madison (330 convicts) and Anamosa (260). The Iowa Industrial School, with 109 girls at Mitchellville and 367 boys at Eldora, removes children from vicious surroundings, and places them under proper instruction and discipline.

Iowa has hospitals for the insane, on large farms, at Independence (700 inmates), Mount Pleasant (760), and Clarinda; and her insane convicts are incarcerated at Anamosa. The Institution for Feeble-Minded Children at Glenwood has over 400 inmates. The College for the Blind at Vinton includes primary, grammar, and high-school courses, and has 180 students. The Industrial Home for the Adult Blind is an efficient charity at Knoxville. The Institution for the Deaf and Dumb at Council Bluffs has 400 patients, and is carefully administrated.

The Soldiers' Home at Marshalltown, opened in 1887, has 274 inmates, and the Soldiers' Orphans' Home at Davenport shelters 300 children.

Education in its common schools costs Iowa nearly $6,000,000 yearly, most of which comes from local taxes. The permanent fund is nearly $4,000,000. The school property is valued at over $12,000,000. There

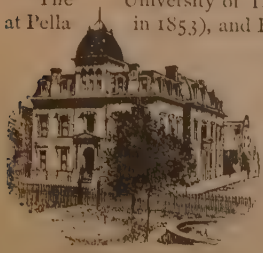
AMES: IOWA AGRICULTURAL COLLEGE.

are 25,000 teachers, four fifths of them women. Educational matters are the especial pride of Iowa citizens, and the utmost care is given to the preservation and up-building of the public schools. Standing as she does in advance of her sister States, with respect to the least degree of illiteracy among her citizens, it is not strange that the fertile prairies and beautiful towns and cities of Iowa are abundantly supplied with well-kept school-houses, normal schools and colleges, and well-trained and thorough instructors afford ample opportunities for higher instruction. "A school-house on every hilltop" is an adage which all Iowa proudly recites as representing the condition of the State's public-school system.

DECORAH: LUTHER COLLEGE.

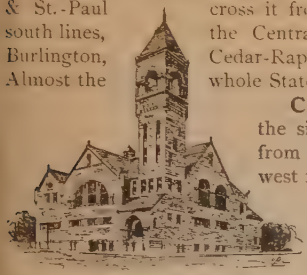
The State Normal School at Cedar Falls has 540 students; and there are private normal schools at Davenport, Des Moines and Dexter, and other places. The University of Iowa was nominally founded in 1847, and opened in 1855, moving two years later into the old State Capitol. After a suspension, the University recommenced in 1860, with 172 students, and now has a yearly income of $44,000 (outside of tuitions). Orphans of Iowa soldiers and two students from each county are taught free. The main building is the handsome old State Capitol, of cream-colored limestone, with a dome overlooking many leagues of rolling prairie and the Iowa valley. The campus occupies ten acres of oak-groves and openings, on a high ridge. The University has nine departments: The college, classical, scientific and engineering courses; the law school, founded in 1868; the medical school, 1870; and homeopathic, dental and pharmaceutical schools. It is co-educational, and has 2,500 graduates. The Iowa Agricultural College, near Ames, was founded in 1869, with the Congressional land-grant, and has 27 instructors and 300 students (including 80 girls). It owns a domain of 900 acres, and costly and well-equipped buildings, but grievous internal dissensions long retarded its development. Iowa College was opened in 1848, on the New-England plan, its founders being mainly ministers from the East. It moved from Davenport to Grinnell in 1860, and then admitted women to its varied courses. The central position, healthy location, and strong religious influences of Iowa College have won popular favor. There are 540 students enrolled, more than half of whom are in the academy and the conservatory of music. Tabor College was founded in 1857 by the Congregationalists. Lenox College is a Presbyterian institution at Hopkinton, and so is Parsons College at Fairfield, and Coe College, a prosperous institute, at Cedar Rapids. The Luther College at Decorah is the largest Norwegian school in the Union. Griswold College was founded by Bishop Perry, at Davenport, overlooking the Mississippi.

The University of Des Moines (1866), the Central University of Iowa (founded at Pella in 1853), and Burlington University (1853), are small Baptist institutions. The Methodists control Upper Iowa University, founded at Fayette in 1857; Iowa Wesleyan University, founded at Mount Pleasant in 1852; Simpson College, founded at Indianola in 1861; and Cornell College, founded at Mount Vernon in 1857. The Christians own Drake University, at Des Moines. The Friends conduct Whittier College, founded at Salem in 1867, and Penn College, at Oskaloosa.


DES MOINES: POST-OFFICE.

The Manufactures of Iowa show yearly products valued at $70,000,000. Along the Mississippi extend the great saw-mills, of which Iowa has 300, with a yearly product exceeding $6,000,000. Clinton possesses one of the largest saw-mills in the world, capable of sawing 60,000 feet of lumber an hour. There are flour-mills, with a yearly product of $20,000,000; meat-packing establishments, yielding $11,000,000 yearly; and manufactories of agricultural implements, wagons, furniture, woolen goods, and boots and shoes.

The Railroads of Iowa make her map appear like an intricate lace-work. The five great lines of the Chicago, Burlington & Quincy; the Chicago, Rock-Island & Pacific; the Chicago & Northwestern; the Illinois Central (Iowa Division); and the Chicago, Milwaukee & St.-Paul cross it from east to west, and are intersected by several north and south lines, the Central Iowa, Minnesota & St.-Louis, Sioux-City & Pacific, Burlington, Cedar-Rapids & Northern, and Chicago, St.-Paul & Kansas-City. Almost the whole State was at one time covered by railway land-grants.


SIOUX CITY: FIRST CONGREGATIONAL CHURCH.

Chief Cities.—Des Moines, the capital of Iowa, occupies the site of the old Fort Des Moines, a United-States garrison from 1832 to 1837 (and then the remotest outpost on the north-west frontier), in a lovely valley of the corn and blue-grass belt, guarded by sloping hills and rich in coal-mines. Among its products are wire-fencing, carriages, pork, and cotton and woolen goods. It is one of the leading railroad centres of the country, and has a large jobbing-trade. Fort Dodge was founded in 1850, by veteran troops of the Florida wars, to check the hostile Sacs and Foxes, and garrisoned until 1853.

Keokuk, "the Gate City," has a pleasant site on a high bluff, in a long curve of the Mississippi, at the foot of the Lower Rapids. In 1840, there were a dozen huts here, surrounded by a deep forest, where seven railways now converge, in a city of iron-foundries and meat-packing houses. Fort Madison was built in 1808, and several times attacked by the Indians. It is now a busy shipping-port.

POST-OFFICE.

Burlington, a pleasant city in "the garden of Iowa," dates from 1833, and was named for a Vermont town. It has a large volume and great variety of manufactures. There are ten lines of railway converging here. Davenport is a thriving city on the bluffs opposite Rock Island, with a costly bridge across the Mississippi. It is the centre of an important onion-raising district, and has a large jobbing trade.

COUNCIL BLUFFS: COURT-HOUSE.

Dubuque is an active city on the Mississippi, with the terminals of five railroads, a business of $40,000,000 yearly, large grain and lumber trades, and works where steel steamboats are made. It occupies a plateau nearly surrounded by high bluffs. Muscatine crowns the bluffs in a great westerly bend of the Mississippi, and rejoices in large lumber and meat-packing industries.

Turning from the Mississippi to the Missouri, another tier of cities comes into view. Council Bluffs lies not far from the old meeting-point of the Indian tribes; and here the Mormons tarried from 1846 to 1849, while on their way to Utah. For many years it was the last village in civilized America, and here California emigrants and trappers procured their outfits before entering the Indian country. It lies across the Missouri from Omaha (Neb). Six railways running west from Chicago here meet the Union Pacific line, and others diverge to the north and south. The city has fine public buildings, newspapers, stock-yards and elevators, and a wholesale trade of $33,000,000 a year, covering a wide area of the Missouri Valley.

DAVENPORT: SCOTT-CO. COURT-HOUSE.

Sioux City, a flourishing manufacturing and railroad centre, and withal a lovely city of homes, was laid out in 1854 at the

SIOUX CITY: SIOUX NATIONAL BANK.

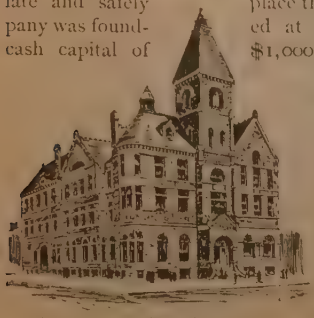
bend of the Missouri, and covers a wide area of rich farming country with its commerce. It has extensive meat-packing works and manufactories, including one of the largest flaxseed-oil mills, using 2,000 car-loads of flaxseed yearly. Over 25,000,000 bricks are made here yearly, and vast quantities of stoneware. During 1887 the territory tributary to Sioux City was 57 days without rain, and yet the average yield of corn to the acre was 76 bushels. This wonderful condition, illustrative of the resistance of the Iowa soil to drouth, created the thought of some festival commemorative of such condition, and the corn palace of 1887 was erected, followed by others in 1888, 1889 and 1890, the centre of the great harvest festivals of the northwest. Sioux City shows intense activity in building, in development of every character, and in new manufactories.

Cedar Rapids has a large water-power on the Cedar River, with machinery and carriage-factories, great oat-meal mills, pork-packing establishments, and 25 wholesale trading-houses at the crossing of several railroads, and in a rich dairy country. It has the only Masonic Library Building in the West, and the largest Masonic library in the world. Among other important towns are Ottumwa, Clinton, Marshalltown, Creston and Waterloo.

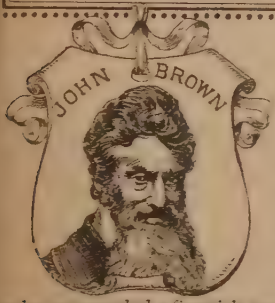
SIOUX CITY: UNION LOAN AND TRUST CO.

Finances.—The peculiarly advantageous situation of Sioux City, in the heart of the best corn-growing region of America, and the unusual enterprise of its citizens and mercantile companies, have contributed toward making the rising metropolis an important financial centre. The volume of banking business is so great that it has been found necessary to organize a clearing-house, whose transactions already surpass those of any other Iowa city. The foremost of the financial institutions is the Sioux National Bank, the largest national bank not only in Sioux City but in the whole State of Iowa. It has already resources of over $1,800,000, and has declared a full score of good dividends, and its business is incessantly increasing. Ever since its foundation, the Sioux National Bank has been a valuable help to the undertakings which have been springing up around it, and has advanced its own cause and the general interests of the city with wisdom and foresight.

Already the exceptional energy and activity of this northwestern metropolis of Sioux City have accumulated here a large capital for banking and investment; and in order to regulate and safely place these great sums of money the Union Loan and Trust Company was founded at Sioux City, in 1885. This corporation has a paid-up cash capital of $1,000,000, and resources of $2,000,000; and has paid semi-annual dividends of five per cent. ever since its organization, never having lost a dollar by bad debts. Its net earnings are about $200,000 a year. The Union Loan and Trust Company handles a large amount of commercial paper, and municipal, corporation and school bonds; and receives funds for investment, paying interest on the same until invested. Under skilful and conservative management, with George L. Joy as president, this institution has become a well-recognized financial power in the rich and fast-developing country tributary to Sioux City, and has an honorable past, and a promising future.



SIOUX CITY: Y. M. C. A. BUILDING.



HISTORY.

Deep in the inmost heart of America, the virgin prairies of Kansas lay fallow for centuries, haunted by a few roving bands of wild Indians and traversed by innumerable herds of buffalo. As early as 1541, however, Francisco Vasquez de Coronado commanded a Spanish expedition which marched from Mexico to the northern boundary of Kansas, in search of gold and silver. The route of Coronado was through the counties of Barber, Kingman, Reno, Harvey, McPherson, Marion, Dickinson, Geary, Riley, Pottawatomie, and Nemaha — a due northeast line. Coronado says he traversed "mighty plains and sandy heaths, smooth and wearisome, and bare of wood. All that way the plains are as full of crooked-backed oxen as the mountain Serena in Spain is of sheep." This is the first authentic account of the buffalo. The French fur-traders from Louisiana and Canada established a station in Kansas, as early as 1705, and thenceforward for nearly a century these gallant chevaliers held little commercial posts within the prairie regions. After DuTissenet explored the Missouri Valley, in 1719, for France, the Spaniards at Santa Fé sent an expedition across the Plains to seize upon the country in advance. Encamping at Leavenworth, they endeavored to ally themselves with the Missourias, then at war with the Pawnees, but 2,000 painted warriors fell upon them in the night, and massacred every man, except a tonsured priest, who was released and sent back to Santa Fé. The greater part of Kansas came to the United States by the Louisiana Purchase. The southwestern corner was included in the Republic of Texas. So part of the State came from France, and part from Spain. Kansas Territory when first organized included that part of Colorado east of the crest of the Rocky Mountains. Among the first Americans to visit this region were the expeditionary forces of Lewis and Clarke, in 1804, and Major Long, in 1819. The

STATISTICS.

Settled at	Fort Leavenworth.
Settled in	1850
Founded by	Western Americans.
Admitted as a State,	1861
Population in 1860,	107,206
In 1870,	364,399
In 1880,	996,096
White,	952,155
Colored,	43,941
American-born,	886,010
Foreign-born,	110,086
Males,	536,667
Females,	459,429
In 1890 (U. S. Census),	1,427,096
Population to the square mile,	12.2
Voting Population,	265,714
Vote for Harrison (1888),	182,904
Vote for Cleveland (1888),	102,745
Net State Debt,	0
Assessed Valuation of Property (1890),	$291,000,000
Area (square miles),	82,080
U. S. Representatives (1893),	8
Militia (disciplined),	1,859
Counties,	111
Post-offices,	1,799
Railroads (miles),	8,806
Manufactures (yearly),	$30,790,212
Operatives,	12,063
Yearly Wages,	$3,999,599
Farm Land (in acres),	21,454,477
Farm-Land Values,	$235,178,936
Farm Products (yearly),	$52,240,301
Public Schools, Average Daily Attendance,	244,697
Newspapers,	705
Latitude,	37° to 40° N.
Longitude,	94°35′ to 102° W.
Temperature,	—29° to 108°
Mean Temperature (Leavenworth),	50°

TEN CHIEF CITIES AND THEIR POPULATIONS. (Census of 1890.)

Kansas City,	98,326
Topeka,	31,007
Wichita,	25,[illegible]
Leavenworth,	[illegible]
Atchison,	13,[illegible]
Fort Scott,	[illegible]
Lawrence,	[illegible]
Hutchinson,	[illegible]
Arkansas City,	[illegible]
Emporia,	7,551

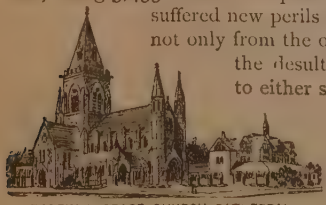
overland trade on the Santa-Fé trail began in 1823, and the outward-bound traders rendezvoused at Council Grove, until trains were made up strong enough to beat off the Indians on the perilous route of 800 miles. The caravan of 1860 contained 6,000 men and 2,000 wagons. A fort was erected on the Missouri to protect this trade, in 1827, and received the name of Col. Leavenworth, of the Third United-States Infantry, then in garrison. This became an important point during the Mexican War and the Californian and Mormon migrations. The troops led to the conquest of New Mexico marched hence across the Kansas prairies; and in 1849-50 90,000 Argonauts moved westward toward California, bidding farewell to civilization at Fort Leavenworth.

LEAVENWORTH: STATUE OF GRANT.

The Missouri Compromise of 1820 provided that the part of the Louisiana Purchase lying north of 36° 30″ (Missouri being excepted) should be exempt from human slavery forever. Arkansas came into the Union as a slave State, and Iowa as a free State, under this agreement. But when the question of Kansas arose, a bitter struggle set in between the anti-slavery and pro-slavery parties in Congress and in the Territory. The Kansas-Nebraska Act of 1854 repealed the condition about slavery, and left it for each commonwealth to settle for itself whether its soil should be free or slave. Two great hostile tides of immigration began to flow into the disputed territory, one composed of Pro-Slavery men from Missouri and the South, and the other of Free-Soil colonists from New England and the Middle States. For a time it was not possible for the latter to pass across Pro-Slavery Missouri, and so "Lane's Trail" was formed through Iowa and Nebraska; and over this circuitous route thousands of Free-State men poured into Kansas. A terrible civil war ensued, lasting for several years, and the new country was ravaged by Jayhawkers, Kickapoo Rangers, Blue Lodges, Regulators and other armed bands. Lawrence, Osawatomie and other towns were sacked; hundreds of men were killed in battle, or assassinated; armies of thousands, with artillery, moved up and down the country; and "Bleeding Kansas" aroused the pity of the world. Eli Thayer, Amos A. Lawrence and others formed the New-England Emigrant-Aid Society, with $1,000,000 capital, and sent out many fearless volunteers, armed with Sharp's rifles. The Pro-Slavery party under Atchison and Lecompte held their quarters at Atchison and Leavenworth; the Freedom party, under John Brown, Conway, Lane and Robinson, centered around Lawrence and Topeka. The convention at Wyandotte, in 1859, produced a constitution forbidding slavery, and the people voted for it, 10,421 to 5,530, thus settling forever the vexed question which had caused so much sorrow and bloodshed.

WICHITA: COURT-HOUSE.

Kansas furnished to the United-States army nearly one sixth of her population, in 17 regiments (largely of cavalry), and three batteries. The State sent into the field 20,097 men, being 3,433 above her quota. Already exhausted by a decade of conflicts, Kansas suffered new perils and losses, especially along the southeastern frontier, not only from the operations of organized troops, but also, and chiefly, from the desultory attacks of guerilla bands, which showed no mercy to either side. The destruction of the unarmed town of Lawrence was one of the most terrible episodes of the civil war.



TOPEKA: GRACE CHURCH CATHEDRAL.

The settlers of Kansas were the bravest men from North and South, coming hither to fight for the hostile principles of Free Soil and Slavery. When the ten years' war had ceased, these tried veterans turned their energies to the material development of the State, exploring, exploiting and cultivating everywhere. In 30 years the population increased twenty-fold.

The Name of the State is an Indian word. The Bureau of Ethnology says that Kansas is a Siouan word, which has been used: 1st, as a tribal name; 2d, as the name of a Kansa gens, part of which are real Wind people; 3d, as the name of an Omaha gens, Wind people; and 4th, as an Osage gens, Wind people, and South-Wind people. The name also appears in personal names, meaning *eagle* or *wind*. It thus appears that the word has reference to wind, and may apply specifically to a certain south-wind well-known locally. In the old days Kansas was known as THE JAYHAWKER STATE. One autumn, in 1856, Pat Devlin, a Free-State Irishman, rode into Osawatomie. "Have you been foraging, Pat?" "Yes, I've been out jayhawking. We have a bird in Ireland we call the jayhawk; it worries its prey before devouring it." In 1861, Col. Jennison called his rough-riding soldiers "Jayhawkers," and the name soon came to be applied to all Kansans. Kansas is known as THE SUNFLOWER STATE, on account of the abundance and luxuriance of these flowers, which are native to her prairies.

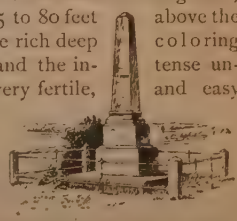
WICHITA: FAIRMOUNT COLLEGE.

The Arms of Kansas represent a prairie landscape, with buffalo pursued by Indian hunters, a settler's cabin, a river with a steamboat, and a cluster of 34 stars. The motto is AD ASTRA PER ASPERA, "To the Stars through Difficulties," alluding to the troubles that Kansas endured while endeavoring to become a State.

WICHITA: CITY HALL.

The Governors of Kansas have been: *Territorial:* Andrew H. Reeder, 1854–5; Wilson Shannon, 1855–6; John W. Geary, 1856–7; Robert J. Walker, 1857–8; Jas. W. Denver, 1858; Samuel Medary, 1858–60; Geo. M. Beebe, 1860–1. *State:* Chas. Robinson, 1861; Thos. Carney, 1861–4; S. J. Crawford, 1864-9; James M. Harvey, 1869–73; Thos. A. Osborne, 1873–7; George T. Anthony, 1877–9; John P. St. John, 1879–83; Geo. W. Glick, 1883–5; John A. Martin, 1885–9; and Lyman U. Humphrey, 1889–93.

Descriptive.—Kansas is the central State of the American Union, the eighth in area, and the second in extent of arable soil. It is considerably larger than all New England; twice as large as Ohio; and about equal to Great Britain. Its length is 408 miles; and its breadth 208 miles. Kansas is midway between the Atlantic and the Pacific, and between Manitoba and the Gulf of Mexico. Its vast undulating plain rises from the south to the north, and from 750 feet above the sea, on the east, to 4,000 feet high on the northwestern frontier. This great inclined prairie is dotted with woodlands, and indented by the broken valleys of hundreds of streams. From the billowy bluffs the view includes rolling prairies, grassy hills, and lines of trees fringing the hidden rivers. The prairie forms a succession of long rolls, or waves, from 1,000 to 5,000 feet from crest to crest, and from 25 to 80 feet above the intervening valleys, usually resting in a bath of brightness, with the rich deep coloring of the blue-black earth, the tender green of the wheat-fields, and the intense unruffled ultramarine of the sky. The soil is free from stones, very fertile, and easy of cultivation. In the southwest there is a tract of sandhills, 100 miles long and three miles wide, once shunned by every one, but recently developed as grazing territory. The Flint Hills lie east of Wichita; the Gypsum Hills, west of Medicine Lodge; and the Blue Hills, between the Solomon and the Saline. The Gypsum Hills form a long-drawn region of red clays and rocks, cut into singular cliffs and spires, and capped with a thick layer of gypsum. The plains are diversified by a few natural curiosities, like Monument Rocks, Castle Rock, Medicine Peak and the Twin Buttes, in the northwest; the Rock City, Perforated



FORT RILEY: OGDEN MONUMENT, THE CENTRE OF THE UNION.

THE GYPSUM HILLS.

Rock, Pulpit Rock, and Table Rock, in the centre; the picturesque Pilot Knob, near Leavenworth, and the mounds along the Marmaton and the Verdigris. The centre and north are traversed by the Kansas River (400 miles long), formed by the confluence of the Smoky-Hill and the Republican, each with its net-work of creeks. The Smoky-Hill flows from Colorado as a little sandy arroyo, gaining in power as it moves eastward, under green and yellow shaly banks and hills of white and buff limestone, and through pinnacles of Dakota sandstone. On the plains of Saline County it receives the Saline (200 miles long), and the Solomon (250 miles), flowing from their sharp little cañons in the northwest, between low cliffs of blue and orange shale and chalk. The Republican River runs from Colorado around through Nebraska, having a course of 400 miles. The Big Blue runs 125 miles from its Nebraska fountains to the Kansas River, around the rocky hills at Manhattan. The Missouri forms the eastern frontier for 150 miles, sometimes half a mile across, and again narrowing to a thousand feet, and everywhere navigable. The Arkansas River flows for 440 miles through the State, with a sandy bottom and many islands, a shallow reddish-colored stream, between low and bare banks. The rivers have a fall of but 7½ feet to the mile. This easy grade affords facilities for artificial irrigation, which are availed of in the west and southwest. The Cimarron waters much of southwestern Kansas; and the Verdigris, Neosho and Marais-des-Cygnes and their myriad tributaries water the southeast and east. Steamboats have ascended the Arkansas River into Kansas, and the Kansas River to Junction City, on the Smoky-Hill Fork, but, strictly speaking, none of the streams, except the Missouri, is navigable.

GARDEN CITY: HERD OF BUFFALO.

Since 1883 the western counties, once regarded as unavailable for farming, and used only by the stock-raisers, have been occupied by many homesteaders. The vast herds of buffalo that formerly traversed these high and treeless plains have vanished. A herd of 50 buffalo is kept on a ranche, near Garden City. The United-States Experiment Station at Garden City has shown that by pulverizing the soil, and covering it at first with matted wheat-straw, crops can be raised without irrigation on these arid lands.

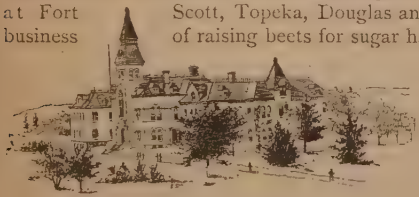
The Climate is pleasant, in spite of the sudden and extreme changes. The winters are mild and dry, although the thermometer sometimes registers extreme cold. The heats of summer are moderated by the prairie breezes, and by the almost unfailing coolness of the nights. The rapid radiation of heat into a clear and cloudless sky from these elevated plains causes a delightful change at nightfall. The high plateau of the western border has a lower temperature than eastern Kansas, with a dry, bracing and rarefied air. The winters elsewhere are short, and ploughing is done in November and February. The hot winds of summer sometimes bring disaster to the crops. North of the long water-shed between the Kansas and the Arkansas the climate is markedly cooler, and wheat thrives well. West of 100° the rainfall is below 20 inches in a year.

GARDEN CITY: UNITED-STATES EXPERIMENT STATION.

The Farm-products reach a value of $140,000,000 a year, and the valuation of the farms is above $450,000,000. It is one of the important agricultural States,

with its glorious wheat carpets along the uplands in June, and the wealth of corn and sorghum which August brings. The average yearly corn-crop of 1877-8-9 was 88,000,000 bushels, which rose in 1884 to 191,000,000, valued at $40,000,000. In 1888, 5,600,000 acres produced 169,000,000 bushels, valued at $52,000,000; and in 1889, 6,800,000 acres produced 274,000,000 bushels. The wheat-crop rose by 1880 to 25,000,000 bushels yearly, valued at $21,000,000, and in 1884, to 48,000,000 bushels, falling again below 6,000,000 in the drought year of 1887, and then rising once more, to 35,000,000 bushels in 1889. The crops of oats in 1877-8-9, averaged 14,000,000 bushels yearly; and in 1888 reached 55,000,000 bushels. Potatoes rose from 4,000,000 bushels in 1880, to 11,500,000 bushels in 1889. The hay-crop includes yearly 2,200,000 tons of prairie-hay, 1,000,000 tons of millet and Hungarian, and 700,000 tons of tame grasses, valued at $14,000,000. The prairies also produce buckwheat and barley, rye and tobacco, flax and hemp, and sweet and white potatoes. Kansas yields 40,000,000 pounds of broom-corn yearly, 122,000 bushels of castor-beans, and 645,000 pounds of cotton. The most reliable crop of southern Kansas is sorghum, for sugar, syrup or forage. The State pays a bounty of two cents a pound on this sugar, and the product of 1889 reached 1,500,000 pounds, besides 5,000,000 gallons of syrup. The chief factories are at Fort Scott, Topeka, Douglas and Conway Springs. Within a brief period the business of raising beets for sugar has attained great proportions, and $2,000,000 is invested in the beet-sugar factories. Kansas has upwards of 20,000,000 fruit-trees, and her peaches, apples, cherries, pears and plums, and small fruits, are famous for their size and flavor. The yearly dairy-products include 30,000,000 pounds of butter, 500,000 pounds of cheese, $600,000 worth of milk, and $1,800,000 worth of poultry and eggs. Bees are kept on many farms, and store up immense quantities of honey from Kansas flowers. Forty million acres of Kansas soil are in grass, supporting an enormous number of domestic animals, including 750,000 horses, bred up with fine Clydesdale and Percheron, Norman and Kentucky stallions; 100,000 mules, highly valued in farming operations; 800,000 milch-cows, improved by admixtures of Hereford and Galloway, Holstein and Jersey stock; and 2,000,000 other cattle.

A KANSAS STOCK-RANGE.



MANHATTAN: STATE AGRICULTURAL COLLEGE.

The live-stock of Kansas is valued at $150,000,000. Horses and cattle show a steady increase for 20 years, but sheep have decreased from 1,200,000 in 1884 to 300,000 now (the State has 160,000 dogs); and swine have fallen off from 2,000,000 in 1885 to 1,600,000. The herdsmen of Kansas are favored by abundant pasturage, copious water, and short winters. The great stock-yards and packing-houses of Kansas City, Kansas, have built up an astonishing business, by which millions of people who rarely eat good meat before are now

KANSAS CITY: THE KANSAS-CITY UNION STOCK-YARDS.

EXCHANGE BUILDING: KANSAS CITY STOCK YARDS.

supplied plentifully with dressed beef, while the canned cooked beef is shipped to the four quarters of the globe. During the year 1890, 1,472,229 cattle, 76,568 calves, 2,865,171 hogs, 535,869 sheep, and 37,118 horses and mules, in 108,160 cars, were received at these stock-yards, and of these animals over 3,000,000 were slaughtered, 1,600,000 sold to shippers, and 320,000 sold to feeders. A small part of the yards is in Kansas City, Missouri; but most of their area and their intricate lines of railway are in Kansas City, Kansas. There is but one city in the world which surpasses, as a live-stock market and meat-packing centre, this metropolis of the Sunflower State. Most of the famous Kansas-City packing-houses are in the Kansas part of the town. They employ a capital of $8,000,000, and have an annual output of $17,000,000, including 260,000,000 pounds of bacon and 140,000,000 pounds of fresh beef, and 60,000,000 pounds of lard and tallow, canned and mess beef. The Kansas-City Stock-yards were founded in 1871, and now handle over $75,000,000 worth of live-stock yearly.

The Geology of Kansas indicates a slow uplifting from under the sea, leaving the strata nearly horizontal. The rocks abound in fossils—the mastodon, the elephant, giant horses, rhinoceroses, camels, sharks, pterodactyls, crocodiles, redwood trees, palms and huge ferns. There are zinc and lead mines in Cherokee County (at Galena, or Short Creek), with 23 smelters at Pittsburgh (Kansas), the second zinc-producing city in the Union. The export of these metals exceeds $800,000 a year, and has now aggregated $9,000,000. The coal-fields cover 17,000 square miles, from the eastern border west to Wichita and Beloit, the strata being nearly horizontal and without faults. The Cherokee vein, three feet thick, and 30 miles long, occurs from the outcrop to 120 feet down, and employs the best machinery and methods in the State, in its mines at Scammonville, Weir City, Pittsburgh, Frontenac and Litchfield. The Fort-Scott, Leavenworth, Pleasanton and La-Cygne mines also produce an excellent coal. Osage and Franklin counties have several mining plants. The Kansas coal is bituminous, and nearly free from sulphur, and has value for smelting and gas-making. Gas-wells are found in the coal country, at Wyandotte, Fort Scott, and Paola, where this fuel is used in manufacturing. In western Kansas occur beds of brown lignite, worked from drifts in the hillsides. New discoveries of mineral treasures are made from time to time throughout the State, but the cereal wealth of the farm-lands will always be the chief source of wealth.

A PRAIRIE FARM.

The smelting-works at Kansas City are among the largest in the world, and new extensions of their operations are continually going forward, so that this locality bids fair to become more and more important in this regard, being favorably placed centrally between the mines and markets. The Consolidated Kansas-City Smelting & Refining Company, with a capital of $2,000,000, has its main office at Kansas City (Mo.), and its works at Argentine (Kan.), with branch smelters at Leadville (Col.) and El Paso (Texas). This enormous

ARKANSAS CITY.

plant refines gold and silver, lead and copper, from the ores of all the principal mining-camps and ore-markets of the United States and Mexico. The yearly output of these smelting and refining works exceeds $18,000,000; and furnishes one fifth of all the silver and lead smelted in the United States. The Consolidated Company employs over 2,500 men, of whom 400 are at Argentine, running eight blast-furnaces in the smelting of ores, and a large number of desilverizing, cupelling and concentrating furnaces, in the refining of the metals. The total number of blast furnaces at the three establishments is 21.

ARGENTINE: CONSOLIDATED KANSAS-CITY SMELTING AND REFINING WORKS.

Central Kansas is of the Triassic period, with extensive and easily-worked beds of gray, white and cream-colored dolomite, or magnesian limestone, which is sawed and planed with ordinary carpenters' tools, and hardens with exposure. This beautiful material has been extensively used in Kansas buildings. Gypsum quarries are also found in this region, the stone being sometimes compact enough for building material. At Solomon City, salt is produced from salt-wells. Beds of rock-salt over 100 feet thick underlie the central counties. The works at Hutchinson can produce 5,000 barrels daily, from deposits of rock-salt; fresh water being forced down to the beds, and when saturated being pumped into tanks and evaporated. Salt is made at other points, being in demand by the pork-packers. There are extensive salt-marshes, covered with a brilliant white incrustation of salt for thousands of acres; and plains of crystallized salt from six to 30 inches thick are found south of the Great Bend of the Arkansas, where broad saline ponds have dried up. Forty thousand square miles of western Kansas is of the Cretaceous period, with valuable white and cream chalk quarries in the bluffs. Hydraulic lime and valuable hydraulic cement are found in abundance, with beds of pure salt in the southwest, and mines of lignite near the Colorado line. Chalk is found in the Smoky-Hill Valley, in a belt over 30 miles wide and nearly 200 feet thick. Wa-Keeney has extensive chalk-works. There are 9,000 square miles of Pliocene marl formations in the northwest, overlaying Miocene grit, under which occur deep strata of Niobrara and Fort-Benton limestones and Dakota sandstones. In this region are found the so-called coralline and colored marbles, and jasper and Kansas agates.

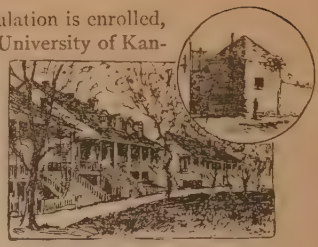
TOPEKA: POST-OFFICE.

The Government consists of a governor and executive officers, elected every two years; a biennial legislature of 40 senators and 125 representatives; and supreme and district courts. The Capitol at Topeka will have cost not far from $2,500,000. The eastern wing was built in 1866-73; and the centre was founded in 1881. It is a classical structure, somewhat in the style of the Capitol at Washington. The State Penitentiary, near Leavenworth, has 920 prisoners. The Industrial Reformatory at Hutchinson has 50 cells. The insane asylums at Topeka and Osawatomie contain 1,200 inmates. There are 100 children in the Asylum for Idiotic and Imbecile Youth, at Winfield; 300 in the Institution for the Deaf and Dumb, at Olathe; 90 in the Institution for the Blind, at Kansas City; 110 in the Soldiers' Orphans' Home; and 200 in the State Reform School, near Topeka.

Education is one of the foremost interests of Kansas, whose school-system is organized with great efficiency, and costs $5,000,000 a year. Over $9,000,000 is invested in property for schoolhouses. The school-fund now amounts to $3,000,000, and

LAWRENCE: UNIVERSITY OF KANSAS.

will reach $13,000,000. Four fifths of the school population is enrolled, and nearly one half is in average daily attendance. The University of Kansas, at Lawrence, has departments of science, literature and arts (131 students), law (51), music (60), pharmacy (42), and art (38), with more than 200 sub-freshmen. One third of these are women; and nine tenths are from Kansas. The great Main Building, the North College, the Chemistry Building, and the handsome Snow Hall of Natural History (of Cottonwood stone), stand on a spacious campus on Mount Oread. The library has 11,000 volumes, and the cabinets 150,000 specimens.



FORT SCOTT: OLD BUILDINGS.

The University of Lawrence, the forerunner of the State University, was founded in 1859, by the Presbyterian Church. The Episcopal Church afterwards endeavored to carry on the institution, but, in 1864, the building and campus were secured by the city, for the State (a donation by Hon. Charles Robinson); and in 1866 the University of Kansas went into operation, endowed by the United States with 46,000 acres of land, the proceeds of whose sales are invested by the State. The State Normal School at Emporia has 14 instructors and 875 students. The Agricultural College at Manhattan possesses a large experimental farm and valuable endowments, and teaches 480 young people. It is a university of industries, adding to the usual literary studies, instruction in farming, mechanical work, printing, sewing, cooking, dairying, and military drill and tactics. Washburn College, founded at Topeka in 1865, has about 50 students, and 190 in the preparatory school. Lane University, at Lecompton, is an institution of the United Brethren; Ottawa University was founded by the Baptists in 1865; Garfield University at Wichita, pertains to the Christian sect, and opened in 1887. The College of the Sisters of Bethany, at Topeka, is Episcopal. The Catholic colleges are St. Benedict's (Benedictine), at Atchison; St. Mary's; and St. Joseph's at Abilene. The Presbyterians conduct Highland University and the College of Emporia. The Methodists have Baker University, at Baldwin City; the Kansas Wesleyan University, at Salina; and a collegiate institution at Winfield.

UNIVERSITY OF KANSAS: SNOW HALL.

The Free Public Library at Topeka has 10,000 volumes, in a handsome building; and the same city also has the great library of the Kansas Historical Society, of 40,000 volumes, and the State Library, of 28,000 volumes.

The National Institutions in Kansas are of much importance and interest. Old Fort Leavenworth, the headquarters of the military department of the Missouri, has ten companies in garrison. This famous frontier stronghold stands on the bluffs of the Missouri, north of Leavenworth, and consists of the long and austere arsenal, the brick barracks, scores of officers' cottages, school buildings, and a noble quadrangle of velvety grass, bordered by stately elms, and shaded by many venerable trees. The post was greatly beautified by Gens. Sheridan and Pope, while they were in command, and is one of the most desired stations in the Republic. The drills and reviews on the parade-ground attract many visitors; and the garrison-band is the finest in the West. The United-States Infantry and Cavalry School, at Fort Leavenworth, gives young officers practical and theoretical instruction in military tactics, ceremonies, military

FORT SCOTT AND THE MARMATON RIVER.

law, hippology, reconnaisance, surveying, attack and defence by outposts and masses, and other martial themes. It is a war college, similar in purpose to the Artillery School at Fort Monroe. At Fort Riley is a National School for the practical instruction of cavalry and light artillery combined, the training of young horses, and the drilling of recruits for the mounted service. There are eight companies in garrison, this fort being the headquarters of the famous Seventh Cavalry. Close to Fort Riley is the geographical centre of the Republic (excluding Alaska). The Western Branch of the National Home for Disabled Volunteer Soldiers was opened in 1886, and contains over 1,800 inmates. It has long ranges of barracks and other buildings, in a beautiful and extensive domain on the Missouri River, near Leavenworth. The Home band gives open-air concerts every Sunday. The United-States Military Prison for the Army, at Fort Leavenworth, contains 500 convicts, enlisted men who have been guilty of serious misdemeanors. They are held under rigid discipline; and manufacture boots and shoes, harness and furniture, and other articles for army use.

EMPORIA: STATE NORMAL SCHOOL.

About a thousand Indians remain in Kansas, under the Pottawatomie and Great Nemaha Agency, besides many who are wandering free. They have long forgotten the art of war, and obtain a comfortable subsistence by tilling their fields and raising stock. Their better methods of living and caring for the sick have checked the mournful death-rate of the tribes, and they are already showing a marked increase of numbers. Five hundred members of the Prairie Band of Pottawatomies occupy 77,000 acres northwest of Topeka; 226 Kickapoos dwell seven miles from Netawaka; 165 Iowas and 80 Sacs and Foxes occupy 24,000 acres in the northeast; and 75 Chippewa and Munsee (or Christian) Indians are near Ottawa. Haskell Institute, at Lawrence, contains 400 boys and 150 girls, from 34 tribes, and gives them a thorough industrial training. It was founded by the Government in 1884, and is the second Indian school, in point of size.

LEAVENWORTH: POST-OFFICE.

Chief Cities.—Leavenworth is beautifully placed on the Missouri, which is crossed by a great steel bridge. It was for many years the chief city of Kansas, and has a large manufacturing and shipping business, with capital local institutions. An heroic bronze statue of Gen. Grant was unveiled in 1889 at Leavenworth. Kansas City, Kansas, is separated from Kansas City, Missouri, by the State line, through the middle of one of its streets. It is the largest city in the State, and stands on the Missouri River, at the mouth of the Kansas. Its stock-yards and packing-houses do an immense business. Topeka, the capital city, occupies a pleasant rolling prairie on both banks of the Kansas River. It is a large milling-centre, and has manufactures with a yearly output of $10,000,000. It is also an important railway centre and distributing point. The noticeable features are the wide-paved streets, extensive electric street-car service, free public schools and colleges, public library, and handsome churches. Lawrence is a lovely little New-England city on both sides of the Kansas River, with its broad Massachusetts Avenue, the University buildings on Mount Oread, and a large country-trade. It has a valuable water-power, with growing manufactures. Wichita, the metropolis of southern Kansas, dates from 1870, and grew so amazingly, that it is called "The Magic Mas-

LEAVENWORTH: NATIONAL SOLDIERS' HOME.

cot of the Plains," with 60 miles of street-car lines, and factories and packing-houses employing 1,500 operatives. Atchison has a pleasant situation on the great bend of the Missouri, and is rich in varied industries. Fort Scott is a busy city on the Marmaton River, with the Government sugar-works, and gas-wells, flagstone quarries, brick-yards, and cement-works. Railroads run in seven directions from Parsons, a busy factory-town and jobbing-point. Ottawa abounds in mills, for flour, sorghum, iron, castor-oil, and furniture. Hutchinson, on the Arkansas, was founded in 1872, and has large meat-packing, sugar-making, lard-refining and salt-works. The trade-centres and chief shipping points of south-western Kansas are Garden City and Dodge City, high up on the Arkansas River. Manhattan was founded by Boston and Cincinnati colonies, in 1885, and is now a prosperous and pleasant city, on the Kansas River. Abilene, on the Smoky-Hill River, used to be the local point of the overland cattle trade. It has long passed out of this era of "revolvers and canned fruit," and now holds high rank as a railway and manufacturing centre. Arkansas City thrives on trade with the neighboring Indian Territory, and on stock-raising and the handling of grain from the surrounding farm-country.

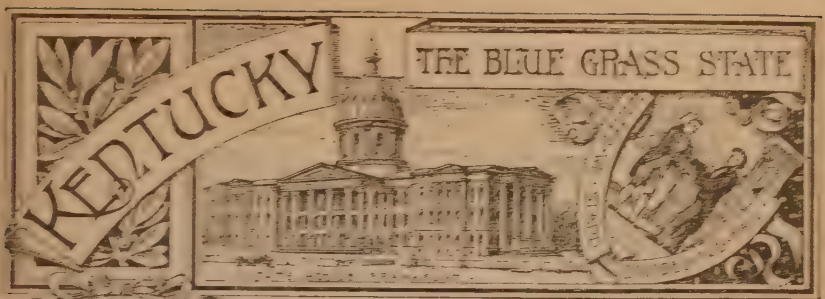
LEAVENWORTH, AND THE MISSOURI RIVER.

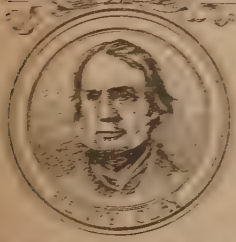
Railways.—The vast movement of corn and wheat, cattle and hogs from Kansas to the East, of hay and garden and dairy products and flour to the mines of the West, is rendered possible by a wonderful system of railways. In 1859 there was not a mile of track in the Territory; now, there are 9,000 miles, and only four counties are outside of their lines. The first railway was begun by the Kansas Pacific line, in 1863, at Wyandotte. This was rapidly constructed through to Denver, at the base of the Rocky Mountains, a distance of 639 miles, and has since been operated by the Union Pacific system as one of the great thoroughfares of the continent. Now four great trunk lines cross the entire State from east to west. The Missouri Pacific traverses the centre of the State, clear into Colorado, and has an elaborate net-work of tracks all over Kansas. The Atchison, Topeka & Santa-Fé, with its 9,000 miles of track, begins in Kansas, and thence penetrates the mysterious Southwest, far into Mexico, with scores of branches Westward, it reaches California, and lays down its freight and passengers at San Francisco and San Diego. Eastward it reaches Chicago and St. Louis, where it joins hands with all the trunk lines. The general offices of this great corporation are at Topeka, and the main shops of the system are also located there.

FORT LEAVENWORTH: MISSOURI-RIVER BRIDGE.

FORT LEAVENWORTH: THE BARRACKS.

Manufactures.—Kansas has 800 factories, employing 16,000 operatives and turning out $50,000,000 in finished products. The chief articles of manufacture are flour and meats.





HISTORY.

Hidden behind the ramparts of the Alleghanies, Kentucky remained nearly three centuries after the discovery of America, before the vedettes of civilization looked from the Cumberland Mountains westward over her silent forests. Ages had passed since the Mound Builders vanished, leaving along the rivers and plateaus great fortresses and mounds, to haunt even the present generation with their mysteries; and this unpeopled country lay as a neutral belt and hunting-ground between the Indians and Shawnees on the north, and the Chicks and Cherokees on the south. Kentucky was included in the royal grant to Virginia; and from that time her adventurous hunters and the mountaineers of North Carolina explored parts of the empty land. In 1769 Daniel Boone, John Finley and others explored this region, and remained two years. In 1770 Washington visited northeastern Kentucky; and Col. Knox and his Long Hunters explored other parts. Harrodsburg was established in 1774; and the next year Boone founded the fort of Boonesborough, bringing to it his wife and daughters, the first white women to enter this commonwealth. In 1776 Kentucky became a county of Virginia. The annals of the region for many years are held with Indian attacks and massacres, the sieges of the American forlorn stations, and the bloody forays of the fierce northern savages and the British troops from Canada.

For nearly twenty years after 1784, the Spanish government at New Orleans was engaged in a series of obscure plots with Wilkinson, Sebastian and other prominent persons, looking toward the secession of Kentucky from the Union, and her annexation to the realms of Spain. Carondelet offered to equip twenty cannon and large supplies of arms and money up the river to aid in freeing the country from the American power. At about the same time (1806) the mysterious scheme

STATISTICS.

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LEXINGTON IN 1782.

of Aaron Burr for conquering a Southwestern empire out of Spain's colonies was under way, and the arch-conspirator enlisted many Kentuckians in his abortive plot. The vast majority of the people and their leaders remained loyal and law-abiding, and so these strange dreams came to nought, and Kentucky in due time attained her long-denied aspirations, the honors of Statehood and the free navigation of the lower Mississippi.

The Kentuckians have always been a martial race. They furnished for the War of 1812 the 7th, 17th and 28th U.-S. Infantry, besides many regiments of hard-fighting militia. To the Mexican war they sent 13,700 brave volunteers; and the monument to their slain at Frankfort called forth the noble poem, *The Bivouac of the Dead*, by Col. Theodore O'Hara, a Kentuckian officer.

During the Secession movement Kentucky at first stood aside, endeavoring to remain an armed neutral State, mediating between the combatants. She was a slave-holding community, having the closest social and business relations with the South; but on the other hand her people cherished that profound love for the Union which Henry Clay, "Harry of the West," had spent his life in nurturing. Gov. Magoffin was a Secessionist, but the Legislature declared boldly for the Union, and armed the State Guard, who were ordered to swear allegiance to the Republic. A large portion of the Kentuckians entered the armies, 91,900 of them fighting under the Stars and Stripes, and 40,000 under the Stars and Bars. Disregarding the Governor's profession of neutrality, the Confederates marched into the State, September 3d, 1861, and the Federals September 7th; and Kentucky for years after became again "The Dark and Bloody Ground." Unable to extend their frontier to the Ohio, the Confederates formed a line of defense across the midlands, with Columbus and Bowling Green strongly fortified; heavily garrisoned works on the Tennessee and Cumberland rivers; and Zollicoffer's army advancing from Cumberland Gap as a flying right wing. The defeat of the latter, by Gen. Thomas, at Mill Spring, and Garfield's victory over Humphrey Marshall, restored the national authority in the eastern counties. Grant's 17,000 men and Foote's iron-clad gunboats, after a bloody February campaign, captured Forts Donelson and Henry, ten miles apart, on the Cumberland and Tennessee rivers, with their garrisons of 15,000 Confederates. In September, 1862, Bragg and Kirby Smith entered the State with splendid Confederate armies, and sharply menaced Louisville and Cincinnati, but were defeated at Perryville, and driven back through Cumberland Gap. After this perilous campaign, there occurred no events of military importance, although John Morgan and his gallant Confederate horsemen made several destructive forays through the State.

LEXINGTON: HENRY CLAY MONUMENT.

FRANKFORT: BOONE MONUMENT.

Since the war-flags were furled, Kentucky has made great advances in prosperity and wealth, building many important railways and beautifying her cities. The larger development of her coal and iron mines, now just beginning, bids fair to be of vast value and significance. Of late years there has been a series of bloody vendettas between families of the mountaineers of Pike, Rowan and other secluded counties, and detachments of militia have been sent up there, from time to time, to restore a transient order. Assassinations are

of frequent occurrence, and oftentimes go unpunished, and the officers of justice escape responsibility.

CUMBERLAND FALLS.

The Name of the State (according to Allen's *Kentucky*) means *The Dark and Bloody Ground.* Ramsey's *Tennessee* translates it *The Dark and Bloody Land.* Moulton's *New York* and Hayward's *Tennessee* call it *The River of Blood.* Johnson (*Indian Tribes of Ohio*) and Gallatin (*Indian Tribes*) believe it to be a Shawnee word, meaning *At the Head of a River*, referring to the ancient migrations of the Shawnees up and down the Kentucky.

The Arms of Kentucky, as ordered in 1792, represent two gentlemen shaking hands. It was intended to have had them in hunter's garb, with their feet on the edge of a precipice, but they are now shown in full dress, one in the costume of the last century, the other modern, and both standing in a room. As James Lane Allen says: "The Kentuckian loves the human swarm. The very motto of his State is a declaration of good-fellowship, and the seal of the Commonwealth the act of shaking hands." The motto is: UNITED WE STAND, DIVIDED WE FALL.

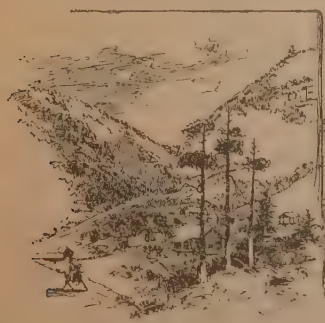
The Governors of Kentucky have been Isaac Shelby, 1792-6; Jas. Garrard, 1796-1804; Christopher Greenup, 1804-8; Chas. Scott, 1808-12; Isaac Shelby, 1812-16; Geo. Madison, 1816; Gabriel Slaughter (acting), 1816-20; John Adair, 1820-4; Joseph Desha, 1824-8; Thos. Metcalfe, 1828-32; John Breathitt, 1832-4; Jas. T. Morehead (acting), 1834-6; Jas. Clark, 1836-7; Chas. A. Wickliffe (acting), 1837-40; Robt. P. Letcher, 1840-4; Wm. Owsley, 1844-8; John J. Crittenden, 1848-50; John L. Helm (acting), 1850-1; L. W. Powell, 1851-5; C. S. Morehead, 1855-9; Beriah Magoffin, 1859-61; J. F. Robinson, 1861-3; Thos. E. Bramlette, 1863-7; John L. Helm, 1867; J. W. Stevenson, 1867-71; P. H. Leslie, 1871-5; J. B. McCreary, 1875-9; L. P. Blackburn, 1879-83; J. P. Knott, 1883-7; S. B. Buckner, 1887-91; and John Young Brown, 1891-95.

Descriptive.—Kentucky is larger than Portugal, or Belgium, Holland and Greece combined. Its domain exceeds those of the five western States of New England united. An area of 3,000 square miles lies in the Alleghany mountain-region, whose two westernmost ranges traverse the southeastern corner. Here the Cumberland Mountains guard the frontiers of the Virginias for 130 miles, with Pine Mountain drawing its long, abrupt and wall-like ridge parallel for many leagues, each range being above 2,000 feet high, and running northeast. Between these great mountain-walls lies the heavily-wooded Cumberland Valley, twelve miles wide, from whose green depths the Black and Brush mountains rise still higher. It is one of the loveliest valleys of the Alleghany range, singularly isolated among strongly marked bordering mountains. Cumberland Gap, 1,675 feet above the sea, and half a mile across, from crest to crest, cuts through the range, where Virginia and Kentucky and Tennessee join, and gives passage to a highway. Pine Gap affords a similar route over Pine Mountain, and here the Cumberland River breaks through, 960 feet above the sea. At Cumberland Falls the river plunges 65 feet over a shelving cliff, amid great beauty of mountain scenery, and near iron springs. Eastern Kentucky is underlaid by fields of coal, and covered by vast forests of white oak and ash, hickory and chestnut, hemlock and yellow pine. These wild highlands are inhabited by a race of sturdy mountaineers, straight and angular in frame, with strong and intelligent features, sad in the women, fierce in the men, in manner shy but fearless, and in their lives listless and tranquil.

FRANKFORT: SOLDIERS' MONUMENT.

The greater part of the State is composed of plateaus, falling off toward the Mississippi and the Ohio, and cut by the deep and abrupt valleys of the streams, with bold bluffs and rounded slopes. In the north is the beautiful rolling country of the Blue Grass, from whose centre, at Lexington, the land falls off toward the mountains and towards the Mississippi. To the southwest lies 10,000 square miles of fertile country, famous for the huge caverns which penetrate its limestone, some of them hiding rivers, but few of which flow in daylight in this region. The rains sink away in gentle depressions of the ground, and enter the underground streams. The cavern-belt runs from Carter County, in the far northeast, to the Ohio below Louisville, including hundreds of grottoes in the subcarboniferous limestone, with many thousands of miles of underground cavern-ways. Near Litchfield there is a grotto fourteen miles long, containing hundreds of halls and avenues, and a wide and deep stream full of eyeless fish.

The Mammoth Cave, near Green River, about midway between Louisville and Nashville, is one of the most wonderful caverns in the world. It was discovered in 1809, by a hunter in pursuit of a bear, and has for many years attracted visitors



CUMBERLAND GAP.

MIDDLESBOROUGH.

from all countries. Among the hidden bases of the hills, far beneath the green forests of Kentucky, the labyrinth of grottoes winds away for over 200 miles of avenues and corridors and cloisters, widening out into great halls, with roofs of sparry stone, and leading to the brinks of unfathomable chasms. Bayard Taylor declared this to be the greatest natural curiosity that he had ever visited. Many miles of passages have been eroded, mainly by water charged with carbonic acid, forming 226 avenues, 23 pits, and 47 domes, adorned with beautiful rosettes and flowers of rock, and stalagmites and stalactites. The first hall entered is the Rotunda, 100 feet high and 175 feet in diameter; and beyond, the dark crypts wind away in various directions, and to scores of halls with magniloquent names. The guides lead their charges to the Floating-Cloud Room, overarched by the similitude of drifting clouds; the Star Chamber, with twinkling constellations of white limestone points overhead; Gorin's Dome, a sublime crag 200 feet high; the profound chasm of the Maelstrom; Cleveland's Cabinet, two miles long, glittering with roses and tulips and daisies of alabaster; Martha's Vineyard, with bowers of colored stalactites in the semblance of grape-clusters; the Pass of El Ghor, winding for two miles between wonderful limestone cliffs; the Great Walk, paved with yellow sand and roofed with white limestone; and many other wonders and mimicries of nature. There are deep and inky-looking lakes, Lethe, the Dead Sea, and others, some of them traversed by boats; and rivers, like the Styx, in places 40 feet wide and 30 feet deep, and Echo River, flowing for nearly a mile with a width of 200 feet. There are several miles of navigable water on these streams, in whose depths dwell strange eyeless fish. The darkness is solid and palpable, and, together with the in-

MAMMOTH CAVE.

tense silence, produces an abiding feeling of drowsiness. The cave is reached by a railway branching from the Louisville & Nashville line; and near its entrance stands a large hotel. Visiting parties usually enter at nine in the morning, with guides, and clad in costumes adapted for rough work. The journey is free from fatigue, on account of the pure air and even temperature; and delicate women have emerged after a walk of six leagues without exhaustion. The atmosphere in the cave is singularly pure and wholesome, nearly devoid of carbonic acid, moisture, ozone and organic matter. The temperature, in summer or winter, remains at 59°. When the outer air is warmer, a steady wind pours out of the cave; when it is cooler, a similar draught rushes into the dark depths. Between 1811 and 1815 great quantities of saltpetre were made here, mainly by negro laborers, who staid inside the cavern from one year's end to another. In 1843 fifteen consumptive persons went into the cave to dwell, in cottages which had been erected for their homes; but the experiment resulted fatally for nearly all of them.

ROCKCASTLE SPRINGS.

The Natural Bridge of Kentucky rises thirty feet above the glen beneath, and has a span of 200 feet. Other great arches of rock occur near Hopkinsville, and in Cumberland County. Rockcastle County has a wonderful natural tunnel 1,800 feet long and from ten to twenty feet high, through which carts pass from one side of Big Hill to the other, the local oxen having become accustomed to the dark transit. In the West, between the Green and Cumberland, are the lands once called "barrens," but of late years proved to be productive. Here thousands of round-topped oak-knobs diversify the surface of the country.

Kentucky was one of the original forest States, and two thirds of her surface remains in woodlands, yielding a valuable product, greatly needed in the adjacent prairie regions. The trees are oak and beech, blue ash and black walnut, maples and tulips, sweet-gums and pines. Seven thousand square miles of prairies found by the pioneers between the Ohio and Tennessee have grown into deep forests, wherever uncultivated, owing to the cessation of the Indian prairie-fires. West of the Tennessee River, on the lowlands toward the Mississippi, occur broad areas of cypress, pecan, catalpa and cottonwood trees.

Vast herds of buffalo and elk once roamed over the blue-grass plains, but they have long since been exterminated. The land now has a few deer, wolves, and bears, and plenty of raccoons and opossums.

Kentucky is peculiarly blessed in its rivers, rising in the great Cumberland range, and passing through narrow cañons and deep glens for many leagues, overlooked by castellated and cavernous rocks, and a rich vegetation of almost tropical luxuriance. The streams abound in edible fish, some of them of great size. Twenty-pound salmon and hundred-pound catfish have been caught here. The Mississippi flows along the western frontier for eighty miles, the avenue of a mighty commerce, but with no important Kentuckian ports. The Ohio forms the northern frontier for 642½ miles, separating Kentucky from Ohio, Indiana and Illinois. Its entire length is continually navigated by fleets of steamboats and barges. At low water the Falls of the Ohio, at Louisville, present a long series of tumultuous rapids, "the most beautiful and extensive natural cabinet of corals in the world—a reef of corals, of exquisite beauty." At high water steamboats run the rapids, up and down. Upwards of 5,000 vessels traverse the Louisville

KENTUCKY-RIVER HIGH BRIDGE.

LOUISVILLE: KENTUCKY & INDIANA BRIDGE.

and Portland Canal yearly, bearing freight exceeding 1,200,000 tons; and nearly 2,000 vessels ascend or descend the open river here, carrying 1,000,000 tons of freight. The Big Sandy River separates Kentucky from West Virginia, and is navigable for steamboats for 26 miles, from the Ohio up to Levisa, where it breaks into the Tug Fork (140 miles long) and Levisa Fork (189 miles), which have been ascended by light-draught steamboats as far as Warfield and Piketon. These streams traverse a wild hill-country, where the roads are few and bad; and are much used by push-boats, in which merchandise is transported. The Cumberland River rises in Eastern Kentucky, and winds for 700 miles down into Tennessee and back north through Western Kentucky, entering the Ohio at Smithland. It is navigable all the year as far as Nashville (192 miles) for light-draught steamboats, and as far as Burnside and the head of Smith's Shoals (529 miles) during half the year. There is a large freight and passenger traffic, employing eight steamboats above Nashville, and eight below, on which grain and tobacco, lumber and merchandise are shipped. The Government is clearing the stream for navigation from Burnside to Pineville, near Cumberland Gap, and nearly 800 miles from the Ohio. The Tennessee River curves through the western counties, with seventy miles of navigable waters in the State, flowing out at Paducah, on the Ohio. This river may be ascended by steamers through Tennessee and Alabama to the frontiers of North Carolina. The Kentucky flows for many leagues through a picturesque gorge in the bird's-eye limestone, and has fine cañon scenery between Frankfort and Boonesborough. The river may be ascended by steamboats for 98 miles, to Oregon. The United States has spent $1,500,000 in improving the navigation of the Kentucky by locks and dams, and small steamboats have ascended at high water as far as Beattyville, 261 miles from the Ohio. A scheme once under discussion, and partly surveyed by the State, contemplated the extension of slackwater navigation from the upper Kentucky by Goose and Richland creeks to the Cumberland, passing Cumberland Gap by a mile-long tunnel, and entering Powell's River (of the Tennessee system), connecting thereafter with the Hiawassee and Savannah, and so to the sea. The Licking is 200 miles long, with 125 miles navigable, to Falmouth; and the Green is 300 miles long, two thirds of it navigable, to Greensburg. There are nearly a thousand miles of navigation on the other rivers, which have been extensively improved by the State and National Governments, so that rafts may descend from the mountains on the rain-tides.

LOUISVILLE: MASONIC WIDOWS' AND ORPHANS' HOME.

The mineral springs of Kentucky have been famous resorts for health-seekers during more than half a century. The Paroquet (Bullitt County), Big-Bone (Boone), Olympian (Bath) and Fox (Fleming) are well-known saline-sulphur waters. Other locally popular resorts are the Bedford, Estill, White-Sulphur, and Tar Springs, and Hickman's, in Daviess County; and the Sebree, Ohio and Rough-Creek Springs. The Blue-Lick Springs, eight miles from Carlisle, are famous all over the world for their efficacy in curing diseases of the liver and kidneys. The water can be smelt a mile away, and is agitated continually by great bubbles of gas. It is exported in large quantities. The numerous Grayson Springs, which are classed among the sulphur waters of America, flow in a little half-acre glen five miles from Litchfield. Eseulapia Springs, in Lewis County, are white sulphur and chalybeate, with a hotel and cottages. Drennon's Lick, in Henry

County, is much visited on account of its black and salt sulphur waters. Rockcastle Springs are amid the craggy highlands of Pulaski County. Linnietta Springs, near Danville, include white and black sulphur, salt, magnesia, alum and iron waters, and are near the Blue Knobs, which overlook a vast area of the Blue-Grass region. Crab Orchard, in Lincoln County, has valuable sulphur and iron waters, and a rural hotel. The salt-licks are marshy glens containing water from springs made saline by flowing through salt-bearing sandstone. Here the wild animals used to come to lick the salt, and thousands of skeletons of elephants and musk-oxen, mastodons and mammoths have been found about these primeval mineral springs.

The Climate is mild and healthful, and more equable than in the neighboring States. The rainfall varies from 45 inches, on the Ohio River, to 60 inches, at Cumberland Gap. The salubrity of the air appears in the excellence of its domestic animals, and in its men, who (with those of Tennessee) were the tallest and heaviest soldiers in the National armies, with the largest heads and chests. Epidemic and miasmatic diseases and consumption are rare, and bodily deformities almost unknown.

LEXINGTON: POST-OFFICE.

Farming was the occupation of the Virginians and Marylanders who founded Kentucky, and it continues to be the chief business, and has attained a great diversity in products. As early as 1840, this State led the Union in wheat and hemp; in 1850, in flax and hemp; in 1870 and 1880, in hemp and tobacco. Kentucky has always been the foremost State in the cultivation of hemp, the larger part of which goes to the New-England rope and cordage mills. The yearly product once passed 35,000 tons, but has now declined to 7,000. The corn crop varies from 50,000,000 to 90,000,000 bushels yearly, and comes largely from the western counties — Henderson, Union, Hopkins, Warren and others. The wheat yield is 12,000,000 bushels, valued at nearly $10,000,000. Christian and Union, in the west, each yield over 500,000 bushels a year. The yearly product of oats has reached 8,000,000 bushels; that of hay, 410,000 tons. The lowlands between the Tennessee and Mississippi, among the forests of catalpa, are whitened by cotton-fields.

Of the 1,271,000,000 pounds of tobacco produced yearly in the world, the United States yields 510,000,000 pounds; Turkey and Hungary following with 120,000,000 each. The taxes paid the American Government from its manufacture since 1862 amount to $840,000,000, derived from 3,400,000 tons of chewing and smoking tobacco, 58,000,000,000 cigars, and 14,000,000,000 cigarettes. Kentucky alone produces nearly two thirds of the American tobacco crop, its output in 1889 reaching 280,000,000 pounds. This is composed about equally of the Burley and dark varieties. The first is raised in the northern and eastern counties, and used chiefly for chewing and smoking, but little of it being exported. The dark is raised altogether in the southern and western counties, and much the greater part of it is exported. Spain, Italy, France, England, Austria, Germany, Mexico, South America and the West Indies are all large buyers, and make their purchases through the warehouses, which receive the crops directly from the farmers and country dealers. In this branch of the business Louisville is preeminent. For nearly a century she has been building and developing it, and is to-day the great tobacco market of the world. The magnitude of her sales, the great variety of tobacco sold, and the facilities for receiving and shipping, have not only attracted large local manufactories,

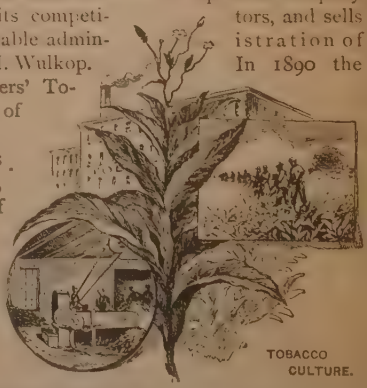
LEXINGTON: BLUE-GRASS PASTURES.

LOUISVILLE: FARMERS' TOBACCO WAREHOUSE.

but buyers of all kinds of tobacco from all parts of the world. The warehouses here, fourteen in number, with millions of capital, handle one third of the tobacco raised in America, the amount sold reaching in a year 135,000 hogsheads. The Kentucky tobacco crops of the past 35 years have brought the enormous sum of $300,000,000, and Louisville has sold the greater part of this, besides millions of dollars' worth from adjoining States.

This interesting department of Kentucky trade centres around the Farmers' Tobacco Warehouse, an immense and architectually beautiful six-story building on Main Street, Louisville. This is the largest and most commodious structure of the kind in America, and can store at one time 6,900 hogsheads. Tobacco is shipped here from the largest handlers. The hogsheads are taken by elevators to the sales-room, or break floor, and then removed from the tobacco, which is broken by stalwart negroes in several places, whence sample bundles are taken out and placed outside the hogshead as samples. Then the sale takes place, by public auction, in the presence of from 75 to 150 buyers, American manufacturers, Mexicans and Canadians, and the representatives of European government factories. The sales are of daily occurrence, and from fifty to eighty hogsheads are sold each hour, at from $25 to $400 each. The transactions are all for cash, for in Kentucky tobacco is king, and brings direct and profitable returns.

In 1834 the tobacco trade of Louisville was confined to a single small warehouse, selling yearly 200 hogsheads, brought in from the surrounding country by wagons and flat-boats. The Farmers' Warehouse opened in 1869, and passed into the hands of the present company in 1880, since which it has advanced beyond all its competitors, and sells 27,000,000 pounds of leaf tobacco yearly, under the able administration of President James Clark and Vice-President Frederick H. Wulkop. In 1890 the Pan-American delegates were received at the Farmers' Tobacco Warehouse, whose great hall bore the flags of all their nations.



TOBACCO CULTURE.

The world-renowned Blue-Grass region covers 10,000 square miles, and is a high undulating plateau, of great landscape beauty, enwalled by a series of abrupt ridges, Muldrough's Hill, King's Mountain, Big Hill, and others. The soil is black or dark brown, and very rich, and by rotation of crops and careful tillage a high agricultural development has been reached. Prof. Agassiz told the farmers of Massachusetts that "the question fundamental to all others in the stock business is the rock question." The rock underlying this region for 150 feet is a rotten blue fossiliferous limestone, rich in phosphate of lime, and of inexhaustible fecundity. This crumbling rock falls to pieces on exposure to the air, and thus continually enriches the growing crops with the best constituents. Tobacco and hemp, two crops requiring the richest and strongest soil, rise from these fields in a gigantic growth, which remains unweakened for many returning years. The native orchard grass (*dactylis glomerata*) still grows in the shady places, but has been run out of the sunlight spaces by the smooth-stalked meadow-grass (*poa pratensis*), probably introduced from England. The latter has a small blue flower; but in reality there is no blue grass, and the origin of the name is a mystery. This strong and hardy vegetation hardly ever stops growing, but boldly pushes up even through the snows, furnishing permanent winter pasturage. The grass is a soft-folded and fine-textured green, covering the pastures in spring and autumn like a thickly matted moss. The country

is one of the most beautiful in the world, with the exquisite folds of its graceful hills, the leafy roofs of the woodland pastures, the crystalline and reposeful skies, the rich harvest-fields, the broad, straight, white highways. It is supposed that the hard limestone water of this region aids in the very complete development of the bones and bodies of the animals grown here, not only the wonderful trotting-horses, but also the thousands of thorough-bred cattle, Cotswold and Southdown sheep, and Berkshire hogs. It may also account for the stalwart men and beautiful women for whom these counties are famous. The improvement of breeds of domestic animals has for many years been a subject of the most careful study and experiment in Kentucky, until it has become the great American centre for blooded stock of all kinds. The horses raised here, adding to the fine endurance of their Anglo-Virginian ancestors the fleetness of later imported racers, win three fourths of the races in the United States, and combine in a remarkable de-degree speed and staying power. As late as the year 1818, a thousand-dollar bet was made that no horse could trot a mile in three minutes; and when Boston Blue succeeded in doing this, he was sent to Europe to be exhibited as a marvel. In 1824 the record fell to a mile in 2.40; in 1854 Flora Temple cut it down under 2.20; and Maud S. has made her mile in 2.08¾. It is the hope and ambition of breeders to produce a horse that can trot a mile in two minutes, and it has been scientifically computed that a horse will accomplish this before 1900. It is natural, of course, to look to Kentucky for that horse.

SPRING STATION: A. J. ALEXANDER—"WOODBURN."

Lexington is the greatest horse-market in the State, and every spring-time dealers in fine horses assemble here from all parts of the country, to attend the annual auction-sales, whose proceeds amount to several millions of dollars. The thorough-bred trotters and runners command high prices, and the amounts paid for them run far up into the thousands. Horses are sent from this favored region to Australia and New Zealand, England and France, Germany and Spain. The Lexington region was famous for its horses from the very first, and as early as 1787 racing was regularly carried on along the Commons. The Lexington Jockey Club came into existence in 1809, and the Kentucky Association in 1826. The efforts of the last-named have been directed to improving the horses of Kentucky, especially in regard to speed and beauty. Fayette County is now almost a solid stock-farm. There are thirty regular breeding establishments, besides which nearly every farmer is to some extent a breeder; and the environs of Lexington abound in park-like homesteads, with velvety lawns of blue grass and shadowy clusters of overarching forest-trees, in whose shade the finest blooded horses in America browse in content. Amid these fair fields, "beautiful as the vale of Tempe and fruitful as Sicily," are many scenes suggestive of the best rural counties of England.

LEXINGTON: KENTUCKY UNIVERSITY, LITERARY DEPARTMENT.

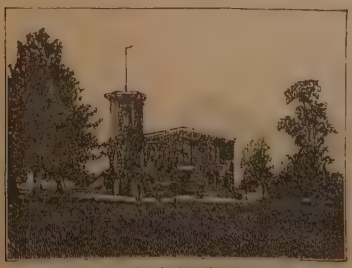
Ashland is half a league from the Lexington court-house, on the Richmond road, amid beautiful grounds and venerable forest-trees. The mansion was erected in 1857, by James B. Clay, on the site of the roomy brick house built by Henry Clay, his father; and preserves in its interior the rich oaken panelling of the older home. Here Webster, Lafayette, Monroe, Van Buren, Gen. Bertrand, Lord Morpeth, and many other illustrious men have been honored guests. Henry Clay was one of the first to perceive and act upon the adaptability of these royal pastures of Kentucky to raising the best of horses,

ASHLAND: MAJ. H. C. McDOWELL'S PASTURE.

and he imported a few thoroughbreds, from which are descended some of the most famous horses of to-day. His son, John M. Clay, devoted himself to thoroughbred runners; and another son, James B. Clay, brought to Ashland the famous Mambrino Chief, whose great family is well-known. James B. Clay's widow sold Ashland to the citizens of Lexington, who gave it to the State Agricultural College. In 1881 the estate was bought by Major H. C. McDowell, who married a grand-daughter of Henry Clay, and (in company with his son, Thomas Clay McDowell) conducts here a noble manorial estate of 440 acres, and one of the choicest stock-farms of the world. The stud includes Dictator, King Rene and Noblesse, with forty fine brood-mares. Dictator, the head of the stud, is the sire of the great trotting race-horses, Jay-Eye-See, Phallas and Director.

The Woodburn estate, embellished by the opulent ownership of a century, is fifteen miles from Lexington, and near Spring Station, and covers 3,000 acres of the juiciest sod of the Blue-Grass country. This domain was bought of Gen. Hugh Mercer's heirs, in 1790, by Robert Alexander, a young man of a Scottish family, who came to America in 1785, and whose sister had been married and brought to America by Gen. Williams, a member of Franklin's embassy. Four years after Robert Alexander's death, in 1841, the estate passed into the hands of his youngest son and two daughters, and was subsequently sold to the oldest son, R. A. Alexander, a Scottish laird turned Kentucky farmer; and when he died, in 1867, it reverted to his brother, A. J. Alexander. For nearly a century this farm has been the scene of many brilliant and successful experiments in breeding, in short-horn cattle, South-Down sheep, and thoroughbred horses, which have brought great glory and wealth to Kentucky. After the famous racer Lexington grew blind, he was bought by R. A. Alexander, for $15,000, and taken to Woodburn. The purchaser met with much ridicule for paying such a price, but his adventure was justified by Lexington's famous sons, Norfolk, Harry Bassett, Asteroid, and Kentucky, the last of which was sold for $40,000. Lexington, the greatest American thoroughbred, was born in 1850, and died in 1875, receiving a royal funeral and a grave on one of the fairest of Kentucky hill-tops. Subsequently, his skeleton was set up in the National Museum, at Washington. Woodburn was the home of the dams of the two fastest horses that ever lived, Maud S. and Jay-Eye-See, and also the birth place of Maud S., the queen of trotters, Nutwood, Wedgewood, and many others. The live-stock of Kentucky includes 372,000 horses, 800,000 cattle, 1,000,000 sheep, and 2,000,000 hogs.

LEXINGTON: "ASHLAND"—MAJ. McDOWELL'S RESIDENCE.



ASHLAND: MAJ. McDOWELL'S STABLES.

Minerals.—The coal product of Kentucky rose from 150,000 tons in 1870 to nearly 2,500,000 tons in 1890. Louisville is the cheapest American market for this product. The Eastern (or Appalachian) coal-fields cover 9,000 square miles, and can be mined at low cost, being above the drainage level, in veins from four to eight feet thick. The pure and valuable Elkhorn coking coal underlies 1,600 square miles in the southeast. The

Western coal-field lies convenient to Green River, and covers 3,888 square miles. Many large mines are worked here; and the fine cannel coal of the Breckenridge district is exported from Cloverport.

"WOODBURN": A. J. ALEXANDER.

There is a large quantity of iron ore in Kentucky, but the production of pig-iron averages little over 50,000 tons a year, at eighteen blast furnaces. Most of the ore comes from Bath County. In 1889–90 vast developments of mineral property were made near Middlesborough, around Cumberland Gap. The chief iron ores are the Clinton (dyestone) of the East; the unstratified limonites of the subcarboniferous limestone, found in the West; and the carbonites and limonites of the coal-measures, found in both sections.

The black shales contain many oil-wells; and in Cumberland and Wayne counties yields heavy lubricating oil. Natural gas has been found in many places, and turned to economic uses in manufacturing. Bowling Green has large quarries of oolite stone. Lithographic stone is worked and dressed at Glasgow Junction; fine buff or cream-colored marble, near the Kentucky River; and Buena-Vista sandstone, in many quarries in the east and north. The State also has the white glass-sand of Muldrough's Hill, the fertilizing marl of Grayson and other counties, and fire-clays and pottery-clays, lead and zinc, limestone and gypsum, and saltpetre.

"WOODBURN": A. J. ALEXANDER.

The Government was modelled after that of Virginia, with a governor and executive officers serving four years, and a legislature of 38 senators and 100 representatives. The Court of Appeals has four judges; and there are also circuit and county courts. The Capitol occupies a pleasant site at Frankfort. The Penitentiary at Frankfort has over 800 convicts, two thirds of them colored. It has a branch at Eddyville. The House of Refuge is a Louisville municipal institution. The Eastern Lunatic Asylum, at Lexington, has 600 inmates; the Central, at Anchorage (near Louisville), has 740; the Western, at Hopkinsville, has 640. The Institution for the Education and Training of Feeble-minded Children, at Frankfort, has 150. The Institution for Deaf Mutes is at Danville; the Institution for the Education of the White and Colored Blind, at Louisville. The Masonic Widows' and Orphans' Home occupies one of the largest buildings in Louisville, and is the only institution of the kind in America, and famous among Masons all over the world.

Education.—The State Agricultural and Mechanical College and Agricultural Experiment Station have several fine buildings, on a domain of 52 acres, overlooking Lexington. There are 16 professors and 300 students, mainly Kentuckians, each State representative being allowed to send one student free of tuition. This institution is maintained by yearly appropriations and the Congressional land-grant, and by a State tax; and teaches chiefly scientific agriculture, technology, and military science.

"WOODBURN": A. J. ALEXANDER.

The first college west of the Alleghanies was Transylvania University, founded in 1780, at Danville, and moved to Lexington in 1788. It received valuable grants from Virginia, and educated many eminent men. Exhausted by the civil war, in 1865 its property was conveyed to Kentucky University, a school founded by the Christian sect, at Harrodsburg, in 1858. This institution occupies the old

ABBEY AT GETHSEMANE.

Transylvania halls, and has 200 students in its college of arts, 100 in its College of the Bible, and 400 in the commercial college. The Christian denomination also conducts South-Kentucky College, at Hopkinsville, and the colleges at Eminence and North-Middletown. The Catholic Church owns St. Joseph's, the oldest college (1819) in Kentucky, at Bardstown, and St. Mary's College. Georgetown College and Bethel College (at Russellville) are Baptist; and the Kentucky Wesleyan College at Millersburg, is Methodist. Central University at Richmond and Centre College and the Theological Seminary at Danville are Presbyterian. Ogden College is at Bowling Green. Berea College, with several interesting buildings on Berea Ridge, overlooking the Blue-Grass country and the mountains around Boone's Gap, was founded in 1855, as a school, and in 1858 became a college. The leaders were Free-Soil men, and in 1859 they were driven from Kentucky, and Berea remained closed until 1865. It is now largely filled with white mountaineers and negro lowlanders, more than half its students being colored. There are about 400 students (two fifths being women), of whom twenty are in the college department. The Kentucky Military Institute was founded in 1845 by West-Point officers, and is at Franklin Springs. The buildings form a quadrangle, amid pleasant pastoral scenery. The Louisville Military Academy occupies fine new buildings, on a domain of thirty acres. Louisville has four medical schools, with nearly 800 students; and schools of dentistry and pharmacy. The Law School of the University of Louisville dates from 1846, and has 33 students. The Southern Baptist Theological Seminary is the largest divinity school in the South, and occupies a handsome modern building. It was opened at Greenville (S. C.) in 1859, and transferred to Louisville in 1877. There are 8 instructors, and 160 students, from a score of States, and from Canada and Mexico. Louisville has medical and law schools for colored people. The Polytechnic School and library at Louisville owns a free library of 42,000 volumes.

LOUISVILLE: CITY HALL.

The first newspaper in Kentucky was the *Kentucky Gazette*, whose career begun at Lexington in 1787. *The Farmers' Library*, the first newspaper in Louisville, made its earliest issues in 1807; and the *Gazette* came in 1808. In 1810 *The Western Courier* appeared, at Louisville. The Kentucky press now includes 20 daily newspapers, 11 semi-weeklies, 166 weeklies, 5 semi-monthlies, and 30 monthlies. Of these 15 are religious, 7 educational, 6 agricultural, and 5 scientific; and others are devoted to law, the labor cause, secret societies and prohibition.

The most powerful agency for wielding, moulding and reflecting the public opinion of Kentucky and much of the South and Southwest is the *Louisville Courier-Journal*, a sturdy Democratic, free-trade, anti-monopoly newspaper, with a very large circulation, and an influence far out of proportion even to this circulation. The *Journal* was founded in 1830; the *Courier*, in 1843; and the *Democrat*, in 1844; and in 1868 the three were consolidated into the present *Courier-Journal*, which immediately won a place of immense power and influence throughout the Ohio and Mississippi Valleys. This achievement is largely due to the brilliant and original editorials of Henry Watterson, and his intuition of genius and inevitable logic of accurate knowledge. The picturesqueness

LOUISVILLE: THE COURIER-JOURNAL.

and fervor of Mr. Watterson's style adorn all subjects treated, with a certain Parisian delicacy of touch, oftentimes rising into tropical richness and strength. The *Weekly Courier-Journal* is said to have a larger circulation than any other Democratic weekly in the United States, or any other Southern newspaper, rising above 100,000 copies each issue. The main owner and president of the *Courier-Journal* company is W. N. Haldeman.

Population.—The white population includes 47,000 Tennesseeans, 30,000 Virginians, 27,000 Ohioans, 18,000 Indianians, 9,000 North-Carolinians, 6,000 Illinoisans, 5,000 Missourians, 2,000 New-Englanders and 1,150,000 natives. There are 250,000 colored Kentuckians; and 60,000 foreigners, half from Germany, and the rest from British soil.

LOUISVILLE: BIRD'S-EYE VIEW, LOOKING DOWN THE OHIO RIVER.

Chief Cities.—Louisville, founded in 1778, by George Rogers Clark, and named for Louis XVI. of France (then America's best friend), is the metropolis of Kentucky and the Lower Ohio, with great and lucrative manufactories and trading enterprises. The Ohio descends here 26 feet in two miles, and steamboats pass around these rapids by a canal, built in 1826–31. Louisville had a score of inhabitants in 1780, 1,000 in 1810, 70,000 in 1860 and above 160,000 in 1890. Since the war, "the Falls City" has become the chief railroad and steamboat gateway of the Southwest; and at the same time her annual product of manufactured goods has risen from $15,000,000 to $66,000,000. The converging railways are united by a belt-line, and two costly bridges across the Ohio connect the Kentucky and Indiana systems of track. The clearing-house records show a yearly business of above $360,000,000. Louisville has six miles of frontage along the Ohio, above which it rises on a plateau seventy feet high, facing the picturesque Indiana Knobs. The many leagues of broad and well-paved streets and avenues are lined with pleasant embowered homes, the dwelling-places of refined hospitality and courtly grace. Food and fuel, rents and land are cheap; and people of moderate means find here comfortable and pleasant homes. The admirable water-supply comes from a reservoir on Crescent Hill, and keeps the local fire-losses very low. The city contains 150 churches (including the Catholic and Episcopal Cathedrals), seven convents, and many asylums and benevolent institutions. The beautiful Cave-Hill Cemetery is one of the best in the South. Foremost among the recent public edifices are the Custom House, which cost $2,500,000, the new City Hall, the ten-story building of the Commercial Club, and the two fine railway stations.

The Galt House is one of the most famous of Southern hotels, and has sheltered Dickens, Bancroft and all the celebrities visiting Louisville for two generations past. The older tavern stood on the site of the Galt family homestead, until its destruction by fire, in 1865; and the present hotel was opened in May, 1869, and has since been the favorite home for travellers in the Ohio Valley. Henry Whitestone prepared the architectural plans for this perfect modern hotel, selecting the Romanesque style, as best adapted to a warm climate, and giving the structure spacious and noble corridors, lofty ceilings, and large rooms. The promise held forth by the fine exterior is fulfilled by the imposing effects of the public apartments and the studied unity of arrangement and effect throughout. The dignity and simplicity of this immense building, and its exceeding comfort as a resting-place for travellers, make the Galt House among the pleasant possessions of thriving Louisville.

LOUISVILLE: GALT HOUSE.

Frankfort, the capital, is on the Kentucky River, and has a large lumber trade. Daniel Boone is buried here. Maysville, founded in 1787, and long famous among the borderers as "Limestone Old Fort," is a handsome city nestling among the hills on the Ohio River. Harrodsburg is the oldest town in Kentucky, christened amid the bloodshed of long Indian wars. Newport and Covington, opposite Cincinnati, have large factories. Paducah maintains an important trade on the Ohio, and is the converging point of several railways, and the principal market-town of Western Kentucky. Hickman and Columbus are the chief Mississippi-River ports; and at the latter (once celebrated as a fortress), transfer ferry-boats carry trains across, and so unite the railway systems. The metropolis of the Blue-Grass country was founded in the year of the battle of Lexington, and its settlers gave it the name of the heroic Massachusetts village. It is a proud little city, with a large trade and extensive live-stock interests. Cynthiana (named for Cynthia and Anna, the daughters of its founder, Robert Harrison) marks the beginning of the Blue-Grass country, on the north, and has several famous breeding-farms in its vicinity. The wealthy and attractive little city of Paris is also surrounded by the paddocks of famous racers. Mount Sterling is the gateway to the mountains.

The Railroads of Kentucky have cost $100,000,000. The Lexington & Ohio, the first railway in the West, was begun in 1831 and opened in 1835, from Lexington to Frankfort, having been built at a cost of $1,000,000, largely with Lexington capital. It had flat rails laid on stone sleepers. This pioneer line was extended to Louisville in 1847, and subsequently to Cincinnati. The Louisville & Nashville Railroad owns over 750 miles of track in Kentucky, and nearly 2,000 miles in adjacent States. The original stem line from Louisville to Nashville was built in 1851-9. Another great route leads from St. Louis southeast to Evansville, crossing into Kentucky at Henderson, and running to Nashville, 318 miles in all. The Chesapeake & Ohio Railway runs from Old Point Comfort and Newport News west across the Virginias to Huntington (494 miles), and thence along the Kentucky shore of the Ohio River to Maysville and Cincinnati (161 miles). The great iron bridge of the Kentucky Central, from Cincinnati to Covington, was built in 1887-8, at a cost of $5,000,000. The Cincinnati, New-Orleans & Texas Pacific line (the famous Cincinnati Southern) runs south from Cincinnati through the Blue-Grass country, and across the grand Cumberland

FRANKFORT.

plateau of Tennessee. It has 198 miles in Kentucky, and transports vast quantities of wheat to the Gulf States. "This audacious road" (as Edward Atkinson calls it) was built by the city of Cincinnati (in 1872-8), at a cost of $21,000,000. High Bridge, over the Kentucky River, is the loftiest pier bridge ever built, being 375 feet above low water. The Kentucky and Indiana Bridge, from Louisville to New Albany, was built in 1882-6, at a cost of $1,500,000, and has seven piers of magnificent limestone masonry (and two of iron), 170 feet high. It is a railway, carriage and foot bridge. The Louisville Bridge, built in 1868-72, at a cost exceeding $2,000,000, has 27 iron spans, on limestone piers.

The great Kentucky-River Bridge, remarkable for its skillful engineering devices, was built by the Edge Moor Bridge Company of Wilmington (Del.).

Finance.—The banking system of Kentucky was founded in 1802, when a company received a charter to insure boats bound for the Spanish towns in Louisiana, with permission also to issue transferable notes. The Bank of Kentucky obtained a charter in 1804, with a capital of $1,000,000. In 1818 the legislature chartered forty-six new banks, with an aggregate capital of $8,720,000, but these were nearly all wrecked within the year. In 1820 the Bank of the Commonwealth was formed, under State auspices; and it captured the Bank of Kentucky. When President Jackson vetoed the United-States Bank bill, in 1834, the legislature endeavored to replace its paper by re-chartering the Bank of Kentucky, and creating the Bank of Louisville and the Northern Bank of Kentucky, with a total capital of $13,000,000. At the closing of the branch of the Bank of the United States, at Louisville, the Bank of Kentucky purchased its building, which it still occupies. This was a magnificent structure for its day, and even now, though plain in outward appearance, its internal arrangements are not surpassed by those of any modern bank. Since the close of the bankrupt period of 1837-42 the local banks have been singularly efficient, domestic in system, honest in management, wisely supervised and in part controlled by the State, standing as the ever-ready supports of business, and giving the people (until the Government taxed their circulation out of existence) the best currency west of the Alleghany Mountains. In 1861 the Bank of Kentucky had eight branches in the State. The perils and losses incident to the war rendered it imperative upon the bank to reduce its circulation, and to withdraw all of its branches, except the one at the capital of the State, which is now in operation. All the older banks weathered the storm of 1857, and maintained specie payments, but called in much of their paper, the remainder of which became the standard for the Ohio Valley. In 1859 their circulation reached $14,000,000, and their good credit enabled them to withstand the extreme adversities of the civil war. The venerable and historic Bank of Kentucky ranks as one of the strongest financial institutions in the United States, and has no rival in the great South. With a paid-in capital of $1,645,100, and a surplus of over $1,000,000, this conservative (yet enterprising) corporation, under the presidency of Thomas L. Barret, is a great factor in the business, not only of Louisville but of the State of Kentucky.

LOUISVILLE: BANK OF KENTUCKY.

As to the finances of the State, there are but few commonwealths in the Union that can have more cash in the treasury than the amount of the bonds and floating debt combined. Yet this was the condition of Kentucky in 1880 and in 1890; and indicates the general thrift of the Commonwealth.

LOUISVILLE: UNITED-STATES CUSTOM HOUSE.

LOUISVILLE: SOUTHERN BAPTIST THEOLOGICAL SEMINARY.

Religion.—One of the largest religious sects in Kentucky is that of the Disciples of Christ, or Christians, frequently called Campbellites, avoiding creeds and dogmas, and striving to unite all Christians with no other term of religious communion except faith in the Lord Jesus Christ and obedience to His laws. Alexander Campbell, a young Scotch-Irishman, began to preach this doctrine in 1810, and continued until his death, in 1866, with great learning and eloquence, advocating a return to apostolic simplicity, throughout West Virginia, Kentucky and other interior States. The communion thus founded increases mightily. It has 6,500 churches and 650,000 communicants. President Garfield was a Disciple.

Another interesting religious outgrowth of this region is the Cumberland Presbyterian Church, now one of the great denominations of America. About the year 1800 the Cumberland country, then recently settled by Virginians and Carolinians, was over-swept by a fervid revival of religion. The conservative element in the Presbyterian Church deplored this spiritual awakening, but the Cumberland Presbytery, favored it, and even allowed theological candidates to adopt the Confession of Faith with reservations (especially as to decrees and election), and to become preachers without having had classical educations. The Synod of Kentucky dissolved Cumberland Presbytery, and cut off its dissenting members; and these latter in 1810 formed the independent Cumberland Presbytery, out of which has grown the present powerful denomination. Among its beliefs are these: There are no eternal reprobates. Christ died for all mankind. All dying infants are saved. The Holy Spirit acts on the world. These are very liberal principles, and have attracted many adherents, the Cumberland Presbyterians now numbering 173,000 communicants, with six colleges and efficient home and Japanese missions.

Kentucky has been hallowed by generations of Catholic missions, ever since 1811, when the Church founded among the Maryland colonists at Bardstown the first bishopric of the West, with spiritual authority reaching from the Atlantic to the Pacific. Many priests and monks fled from France to these peaceful solitudes during the French Revolution. In 1849 a band of forty-five monks from the Abbey of La Melleraye founded a Trappist Abbey at Gethsemane, sixty miles from Louisville, and their great stone buildings and chapels still stand, in a rich domain of 700 acres, and give shelter to a band of silent, laborious and prayerful monks. No Americans have entered this austere brotherhood. The first physician and the first schoolmaster in Kentucky were Catholics. The sisterhood at Loretto was founded in 1812, by Father Rininck. The Catholics hold the greatest value in property.

The first Protestant-Episcopal confirmation occurred at Lexington in 1829, and in 1832 the diocese of Kentucky came into being, under Bishop B. B. Smith. The first Methodist Church rose in 1786, in Mason County, and Bishops Asbury and McKendree were among its early leaders. The Methodist have 1,000 churches, 120,000 members, and 500,000 adherents.

Manufactures doubled between 1860 and 1885, when they numbered 5,219 establishments, with a capital of $57,000,000, and yearly products valued at $103,000,000. Among the chief items are: Flour, $16,000,000; lumber, $6,000,000; iron and steel, $18,000,000; agricultural implements, $3,000,000; carriages, $13,000,000; and meat products, $6,000,000. The oak-forests and stock farms of the region have given rise to a large trade in oak-tanned leather, for soles, harness and belting, and the 22 Louisville tanneries turn out this valuable commodity to the extent of $2,500,000 a year. Louisville makes yearly 40,000 tons of cast-iron gas and water pipes. The recent development of iron-making

LOUISVILLE: WESTERN CEMENT WORKS.

cities in various parts of the State, from Grand Rivers to Middlesborough, has a tendency to increase the manufacturing here, and to awaken the ingenuity of the people in many ways. The centre of population in the United States is near Kentucky, the meeting-ground of the alertness of the South and the diligence of the North.

LOUISVILLE: WESTERN CEMENT WORKS.

The cement-mills of Louisville and vicinity produce vast quantities of the best cement, which finds a market all over the West. The manufacture of Louisville cement began in 1829. Most of the product of the then small mill was used in the construction of the Louisville and Portland Canal, where now, after a period of more than fifty years, and, notwithstanding the rude process and the small quantity manufactured, the cement is not only in a perfect state of preservation, but has attained a degree of hardness that indicates its durability for all time to come. Louisville cement has been used in every character of work with marked success. Its strong hydraulic qualities render it particularly valuable in subterraneous structures. In the construction of water-works, sewers and bridges, and in concrete foundations for bridges and streets, it has been used in every State and Territory in the West and South. The consumption of Louisville cement west of the Alleghany Mountains is larger than that of all other varieties combined. All mills producing standard brands of Louisville cement are represented by the Western Cement Association, whose sales in 1889 were 1,338,464 barrels. The Association represents the Hulme, Speed, Queen-City, Falls-City, Black-Diamond (River), Black-Diamond (Railroad), Silver-Creek, Ohio-Valley, and Eagle mills.

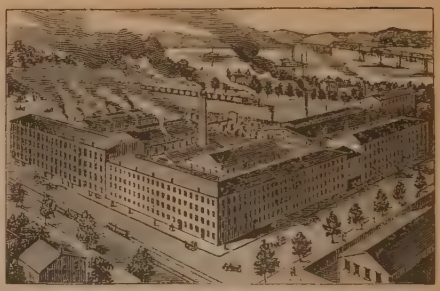
LOUISVILLE: KENTUCKY WAGON MANUFACTURING CO.'S WORKS.

An immense and important Louisville industry, called forth by the needs of the agricultural communities of the Ohio Valley and the South, is the Kentucky Wagon Manufacturing Company's Works, the best-arranged establishment for making farm-wagons in the world, and with the largest capacity. The works cover thirty acres, and have eight acres of roofing, and three miles of railroad, besides special water-works and electric lights. The great object of study has been to have the lumber come in at one end, and pass straight along until it emerges at the other end as finished wagons, without any unnecessary handling. Black hickory for axles, white oak for running gear, yellow poplar for sides and ends, and yellow pine for wagon bottoms, each leaves the lumber yard and passes forward, always under close scrutiny for imperfections, until finally the assembled parts emerge from the paint shop in the form of an Old-Hickory or a Tennessee wagon, cheap, convenient and durable, and destined for many years of usefulness on the Reelfoot lowlands, or over the Cumberland hills, or in distant States, whose farmers have long since learned the merit of these wagons. Full 500 men are employed in this establishment, whose products are widely diffused over the world.

LOUISVILLE: COURT-HOUSE

Louisville leads the world in the manufacture of plows, and has introduced her wares not only into nearly every

county in the Union, but also into Mexico and South America, as well as into Australia and other remote countries. The business was founded in 1848 by B. F. Avery, a New-Yorker, who had been operating a foundry in Virginia since 1825. The B. F. Avery & Sons' plow works occupy six acres of brick buildings, independent of outlying yards for lumber and other supplies; and give regular employment to 600 men and $1,500,000 of capital. The annual product exceeds 200,000 plows, besides thousands of tons of blades and incidental plow parts. Fully 143 different kinds of plows and cultivators are made here (not including the variety of sizes of each kind). The reputation of the factory is especially high in connection with the peculiar adaptability and superiority of Avery plows for cotton, as well as general farming in the Southern and Southwestern States. It supplies equally well a light garden plow, an ordinary plow for medium work, the special plow for the sugar lands of Louisiana and Cuba; another class for the sticky black land of Texas, the chilled plow for rocky fields, and the riding or sulky plow for breaking up a prairie, as well as the huge and powerful railroad plow, for tearing to pieces a macadamized street. Here the cast or chilled plows are moulded and ground; the steel plows, starting in as slabs of steel, are sheared, pressed, welded and fitted into shape, and then tempered and polished; and millions of feet of selected white-oak timber are cut, steamed, bent and finished into shape as plow beams and handles. All the iron and wooden parts of plows are made here, high quality of material, workmanship and finish being the foremost considerations; and the lumber, pig-iron and steel which enter the works leave in the form of cultivating implements adapted for the soil of Kentucky, or Ceylon, or Brazil.



LOUISVILLE: B. F. AVERY & SONS' PLOW WORKS.

At Louisville are the main works of the greatest hickory handle manufacturers of the world — the Turner, Day & Woolworth Manufacturing Company. They make hickory handles of all kinds for axes, adzes, picks, sledges, hatchets, hammers, tools, etc. These are sold and shipped to every State in the Union and to almost every country on the globe. The business was founded in Connecticut about thirty-five years ago, afterwards moved to Baltimore, and in 1877 settled at Louisville, to get as close to their timber as possible without losing all the advantages of a large manufacturing city. Here is done chiefly the finishing of the handles made from the timber which has been sawed to various lengths in the rough at their dozen or more mills in various parts of Kentucky and Tennessee. Upwards of 250 men are employed at Louisville, 100 at their factory at Bowling Green and about 175 at the saw-mills, giving a total force of about 500 men. The use of hickory handles is quite large, and the many patterns of each kind are numerous. For instance, there are nearly 100 different patterns of axe handles. The capital of the Turner, Day & Woolworth Manufacturing Company is $400,000; but this only vaguely represents the value of the properties.

LOUISVILLE: TURNER, DAY & WOOLWORTH.

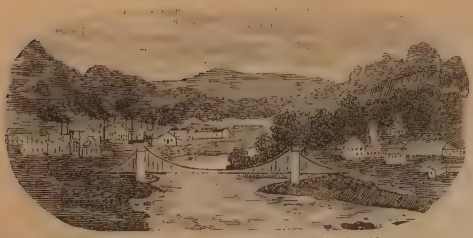
Kentucky whisky properly made and aged has given this State the chief markets of all the Union for the sale of her famous product. Its manufacture and storage constitute one of the leading industries of Kentucky. The capital invested reaches far into the millions, and the product carries $15,000,000 yearly into the Federal Treasury. Most whisky is made from grain — usually from corn, rye and malt — the latter indispensable to a certain extent.

The grain is reduced to meal, which is scalded in order to break up the starch-cells and liberate the starch, to be converted into grape-sugar by the diastase of the malt. The whole mass then goes into a fermenter, and from the presence of yeast undergoes the vinous fermentation, which by obscure processes produces a variety of new compounds, alcohol and carbonic-acid gas, and a number of oils and acids in limited quantities. The carbonic-acid gas escapes; and the whisky, with or without the oils or other products, is separated from the residual by distillation. The generic term whisky embraces several species known as spirits, continuous, Bourbon and rye. Bourbon, the term used generally to designate Kentucky whisky, is again subdivided into sweet and sour mash. Spirits is the product of distillation so conducted as to take out everything except the water and alcohol. This compound is fixed, and remains the same at the end of three years as when first made. It has a sweetish, pungent, alcoholic taste, without any aroma or bouquet, and without any agreeable flavor. It forms the base of all compounded whisky —the word "compound" meaning a mixture of spirits and Bourbon or rye whisky. The term Bourbon is applied to Kentucky whisky made from a mixture of corn, rye and malt, of which the corn constitutes the larger part. In its distillation some of the oils and acids are allowed to remain. These, with age, undergo chemical action, and are converted into aromatic ethers, pleasant to the taste and agreeable to the stomach. While the principal product of Kentucky is Bourbon, sweet and sour mash, there is a large quantity of rye whisky made annually. This species is produced from rye and malt, and in all other respects is made and treated as the Bourbon. It is not easy to say why certain localities produce certain liquors superior in quality to what can be produced in any other locality. Yet this is known to be so. The generally accepted theory is that vinous ferment is set up by an organism or living cell, which is most likely, to a great extent, influenced by climate, water, air, and soil. Kentucky has been found by long experience (as shown by the consensus of opinion of the United States) to produce whisky of a quality superior to that which is produced in any other section. The reason for this lies in the fact that Kentucky is peculiarly adapted to the growth of that particular species of organism capable of forming yeast of that character which alone produces whisky of the highest quality. This natural advantage exists to a much greater extent in some than in other sections of Kentucky, and judging from the experience of the last century the interior of the State is the most highly favored. Having the advantage of an interior location in the sections of Kentucky more or less underlaid with limestone, the quality of whisky produced depends on the intelligence and skill applied to the equipment and management of the plant. Negligence of the conditions necessary to the propagation of the yeast cell; grain of inferior quality, and warehouses damp and illy ventilated, are more than enough to undo all that nature has done for Kentucky in the preparation for making and aging whisky. No

HENDERSON BRIDGE.

KENTUCKY-RIVER BRIDGE.

COVINGTON: C. & O. BRIDGE ACROSS THE OHIO.



ATHERTON: THE J. M. ATHERTON DISTILLERY.

process has yet been found which takes the place of *time* in maturing whisky. The improvement results from the action of the oxygen of the air on the compounds produced by the fermentation. It will thus be seen at a glance that the natural advantage which Kentucky holds over the rest of the Union for producing fine whisky must in its application be aided by a good location; by the use of pure water and grain of the best quality, mixed in proper proportions; by intelligent distillation; and by storage for aging in dry, clean warehouses supplied with an abundance of fresh air, always to be had in the country and seldom or never to be found in and about the cities. New whisky, wherever made, is unfit for internal use. In fact, the words Kentucky whisky mean a whisky in which age has changed the original oils into new compounds at once harmless and agreeable.

The distilleries of The J. M. Atherton Company are near New Haven, in Nelson County, a region that has long been famous as one of the three or four localities producing the finest Kentucky whiskies; the product of each locality retaining, to a certain degree, its own characteristic flavor. The Atherton distillery was built here in 1867, and the Atherton brand established at that time. It was a small frame structure, with a capacity of ten barrels of whisky per day. The Mayfield distillery was built in 1869. The plant now consists of three distilleries, with a daily mashing capacity of 2,200 bushels of grain, producing 225 barrels of whisky; ten warehouses, having a total storage capacity of over 100,000 barrels; cooperage works which can turn out 225 barrels per day; and extensive cattle barns, machine shops, and offices. The entire premises embrace more than forty acres, connected with the Louisville & Nashville Railroad by three miles of track owned and operated by The J. M. Atherton Company. The distillery buildings and warehouses are of brick; the equipment is the most improved modern machinery and distilling apparatus; and the warehouses are thoroughly ventilated and heated by steam. Only the highest grades of Kentucky whiskies — Bourbon, sour-mash and rye — are made, under the brands "Atherton," "Mayfield," "Windsor," "Clifton," "Carter," and others.

Another of these world-renowned distillery plants is that of the "O. F. C." and Carlisle Distilleries, founded at Frankfort in 1870, and since 1879 conducted by The E. H. Taylor, Jr., Company. The product is wholesaled exclusively by The Geo. T. Stagg Company. The distilleries cover twenty acres, on the Kentucky River, with two separate distillery buildings, warehouses, elevators, cattle-pens and smaller buildings. They are acknowledged to be, for amount of daily mash, the best equipped and finest distilleries in the world. Many men are employed in the cooper shops and in the distilleries, manufacturing packages to contain the product and aiding in the conversion of corn, rye and malt into spirituous liquors. The special grades prepared here are "O. F. C. Hand-made Sour-mash" and "Carlisle Standard Sour-mash" whiskies, both singled and doubled in copper. Many veteran connoisseurs bear constant witness to the purity and excellence of the brands, their rare flavor and healthful tonic benefits. Only high grade goods are manufactured at these distilleries.

FRANKFORT: E. H. TAYLOR, JR., CO.'S "O. F. C." DISTILLERY.

HISTORY.

Among the first visitors to Louisiana were the Spanish men-at-arms of De Soto's expedition, under Muscogo, who after the death of their chief, in 1542, descended the Mississippi in rude brigantines, and went out to sea. In 1682 the brave Sieur de la Salle floated down the great river from the Illinois River to the Gulf, and took possession of the country in the name of France, erecting pillars on the banks of the Mississippi to show that it was French territory. Four years later, La Salle came from France to occupy Louisiana, but his fleet failed to find the Mississippi, and landed on the Texan coast, where La Salle died, and most of his men starved to death. In 1699 another expedition was sent from France to Louisiana, under Iberville. It landed at what is now Ocean Springs, Mississippi, and established there a settlement, named Biloxi. Iberville and his brother Bienville sailed up Lakes Pontchartrain and Maurepas, and explored the Mississippi River, from Natchez to the Gulf. The first settlement in Louisiana was made by Iberville, 70 miles up the Mississippi, in 1700, as a military colony, to prevent the English from ascending the river. Louisiana was given to Antoine Crozat in 1712, with exclusive control from Canada to the Gulf. Six years later, Crozat relinquished this vast but unprofitable empire, and it passed into the possession of the Western Company, organized by John Law. In the same year, Bienville was appointed governor, and moved the settlement from Biloxi. New Orleans was founded in 1718, with 68 inhabitants, the only other settlement in Louisiana being at Natchitoches. The arrival of several fleets of French immigrants increased the population; and in 1722, Louisiana contained 4,820 whites and 600 negroes, and the capital was moved to New Orleans. The next 20 years were taken up in Indian wars. The French joined forces with the Choctaws, and

STATISTICS.

Settled at	Biloxi.
Settled jn	1699
Founded by	Frenchmen.
Admitted as a State,	1812
Population, in 1860,	708,002
In 1870,	726,915
In 1880,	939,946
White,	454,954
Colored,	484,992
American-born,	885,800
Foreign-born,	54,146
Males,	468,754
Females,	471,192
In 1890 (U. S. census),	1,118,587
Population to the square mile,	20.7
Voting Population,	216,787
Vote for Harrison (1888),	30,663
Vote for Cleveland (1888),	85,032
Net State debt,	$12,513,214.92
Assessed Valuation of Property (1890),	$234,000,000
Area (square miles),	48,720
U. S. Representatives (1893),	6
Militia (Disciplined),	1,665
Counties,	59
Post-offices,	901
Railroads (miles),	1,759
Vessels,	562
Tonnage,	62,402
Manufactures (yearly),	$24,205,183
Operatives,	12,167
Yearly Wages,	$4,358,841
Farm Land (in acres),	8,273,506
Farm-Land Values,	$58,980,117
Farm Products (yearly),	$12,883,522
Public Schools, Average Daily Attendance,	90,551
Newspapers,	173
Latitude,	89° to 94° N.
Longitude,	28°56′ to 33° W.
Temperature,	1° to 107°
Mean Temperature (New Orleans),	69°

TEN CHIEF CITIES AND THEIR POPULATIONS. (Census of 1890.)

New Orleans,	242,039
Shreveport,	11,979
Baton Rouge,	10,478
New Iberia,	3,447
Lake Charles,	3,442
Gretna,	3,332
Monroe,	3,256
Plaquemine,	3,222
Donaldsonville,	3,121
Alexandria,	2,861

NEW ORLEANS: ANCIENT COURT-HOUSE.

nearly annihilated the Natchez tribe, but the Chickasaws took up the Natchez cause, and the French were frequently defeated, even with Bienville in command. In 1764 the Louisianians were notified that their country had been ceded to Spain, and the next year Antonio de Ulloa arrived to become governor. The people were opposed to Spanish rule, and finally taking possession of New Orleans, they sent Ulloa away on an outbound ship, and established a government of their own, sending delegates to France to ask the King to again occupy Louisiana. Their request being refused, the insurgents contemplated the establishment of a republic; but in 1769, Don Alexander O'Reilly arrived as the Spanish governor, with 2,600 troops and 50 guns. The rebellion was suppressed, and its leaders were shot on the Place d'Armes at New Orleans. At that time the province was defined as extending northward to the source of the Mississippi, and westward to the Pacific Ocean. During the War of the Revolution, the Spanish governor, Galvez, aided the Americans by supplying them with powder, by way of the Mississippi; and in 1779–80, he led an army, largely of Louisiana Creoles, against the British in Florida, capturing Baton Rouge, Mobile and Pensacola, with their garrisons. After the Revolution, the United States claimed and occupied the east bank of the Mississippi down to Red River. The west bank remained in possession of Spain. East of the great river, the Spanish held the Island of Orleans, between the Mississippi, the lakes and Bayou Manchac. The country north of this, as far as the American possessions, was held by England as a portion of West Florida. As the Mississippi Valley became more and more favored by American settlers, the narrow policy of the Spaniards became offensive to the people of the young Republic. Envoys of Spain endeavored to persuade Kentucky and Tennessee to secede from the Union, and join Louisiana; but the American political leaders pocketed their money and gave them no results. In 1801, the great province was ceded back to France, but the treaty was kept secret. Napoleon intended to send hither Gen. Victor and 25,000 choice French troops, to firmly establish a noble New France in the west. But the supremacy of Great Britain on the sea rendered this move impossible, and left the country without defence. Unable to garrison the new domain, and fearing that England would seize it, Napoleon made haste to sell the province to the United States, receiving $12,000,000, over and above which the American Government bound itself to pay the French Spoliation claims, amounting to $4,000,000. The Spanish standard gave place to the French tri-color in 1803, amid splendid military ceremonies; and on December 18th, the American troops, marching from Fort Adams, entered New Orleans, and the Stars and Stripes fluttered upward over the Place d'Armes.

EADS JETTIES, MOUTH OF MISSISSIPPI RIVER.

A BAYOU.

The larger part of the present Louisiana was formed into the Territory of Orleans, in 1804. In 1810 the parishes east of the Mississippi, and north of Bayou Manchac (then held by Spain), revolted, and set up "the republic of West Florida." They asked for admission to the Union, but met with refusal, and Gov. Claiborne annexed the territory to Louisiana. Late in 1814, Gen. Pakenham's British army of 14,450 men landed from Admiral Cochran's squadron, and advanced by Lake Borgne against New Orleans. After several days of sharp fighting, the

invaders made a grand assault (January 8, 1815) on Gen. Jackson's lines, defended by 3,500 Tennessee, Kentucky, and Louisiana riflemen, and were repulsed with a loss of 3,000 men, including three generals. A few days later, they took ship and sailed away.

FETIT ANSE.

A convention in Baton Rouge, February 26, 1861, voted in favor of secession from the Union. Forts Jackson, St. Philip, Livingston, and Pike and the United-States Arsenal at Baton Rouge had already been seized. In April, 1862, Farragut and 47 American war-vessels, with 310 guns, sunk the Confederate iron-clads and gunboats in the Mississippi, and ran past the forts. Gen. Butler soon followed with his army, and New Orleans, at the mercy of Farragut's guns, was occupied and thereafter held by the Union troops, who also garrisoned Baton Rouge and held the riparian parishes. Gen. N. P. Banks took command in December. In 1864, he advanced up the Red River to attack Shreveport, the Confederate capital of the State. Though supported by Admiral Porter's fleet, his army was beaten at Mansfield, and was forced to retreat for many days, fighting all the time, to and beyond Alexandria.

For many years after the military government ceased in Louisiana, the State was perturbed by political conflicts, caused by the determined efforts of the minority of white Democrats to wrest the government from the hands of the Republicans, numerically much stronger, but largely composed of ignorant negroes.

LAKE CHARLES.

The Population of Louisiana is singularly diversified as to language and race. Among the negroes in the southern parishes, "gumbo," or so-called Creole French, is common; and in the prairie country Acadian or "Cajun" French is largely used, both being corrupt dialects. The Spanish formerly spoken in portions of St. Bernard, Lafourche and Iberia has given way to French or English, although the people retain their Spanish names. In the southwestern parishes, Lafourche, Terrebonne, St. Martin, St. Mary's, Iberia, Acadia, Lafayette and St. Landry, dwell the descendants of the Acadians who were banished from Nova Scotia in 1755. Like the French Canadians, they are a prolific race, and have increased from 7,500 to 200,000, constituting a large majority of Louisiana's French-speaking population. A distinction is still drawn between them and the "Creoles," the descendants of the original French settlers, and the large number of people who came to Louisiana after the San-Domingo massacre and the expulsion of the whites from Hayti. The parishes of St. Charles, St. James, St. John the Baptist and Ascension, formerly known as "The German Coast," were settled by colonists from Alsace. Their descendants have become thoroughly Creolized, although still bearing their German names. The Spanish settlers were mainly Catalans, and Islingues, as the Canary-Islanders were called. The latter constitute a majority of the people in St.-Bernard parish. The Italian population has increased rapidly within 20 years. In New Orleans alone they number over 20,000; and abound throughout the sugar-districts, where they com-

NEW ORLEANS: OLD GATE—SPANISH FORT.

NEW ORLEANS: JACKSON SQUARE.

pete in plantation work with the negroes. The cosmopolitan character of the population appears in New Orleans, where only 18.2 per cent. of the inhabitants are of English or American descent, 17.4 French, 15.4 German, 13.8 Irish, 7.8 Italian, and 2.7 Spanish. The dark races comprise the remainder, 15 per cent. being negroes of pure descent and 9.6 of mixed races, ranging from octoroons (seven eighths white) to mulattoes (half-breeds). Among the negroes there is a large element of Indian blood, the original Indian slaves having disappeared by intermarriage with them. Besides these, there are a number of Malays (called in Louisiana the "Manila men"), Chinese, and Indians (mostly of the Choctaw race). The negroes, who formerly constituted a large majority, are giving way before the greater prolificness of the Acadians; and in southern Louisiana the whites are in a majority, whereas north of Red River the population is two to one negro, and in some parishes ten to one.

The Name of Louisiana was given by La Salle, in honor of Louis XIV., King of France, "Le Grand Monarque." The popular name is THE PELICAN STATE, derived from the symbols on the State arms. It is also sometimes called THE CREOLE STATE.

The Arms of Louisiana show a pelican, standing in a protecting attitude over her nest, and feeding the birdlings with her own blood. Above her head are the evenly-balanced scales of Justice, with 18 stars, in a half circle. The motto is UNION, JUSTICE AND CONFIDENCE.

NEW ORLEANS: UNITED-STATES MINT.

The Governors of Louisiana since the purchase from France have been: *Territorial:* Wm. C. C. Claiborne, 1804–12. *State:* Wm. C. C. Claiborne, 1813–16; Jas. Villeré, 1816–20; Thos. Bolling Robertson, 1820–4; H. S. Thibodaux (acting), 1824; Henry Johnson, 1824–8; Peter Derbigny, 1828–9; A. Beauvais (acting), 1829–30; Jacques Dupré (acting), 1830–1; André Bienvenu Roman, 1830–4, and 1838–41; Edward D. White, 1834–8; Alexander Mouton, 1841–5; Isaac Johnson, 1845–50; Joseph Walker, 1850–4; Paul O. Hebert, 1854–8; Robert C. Wickliffe, 1858–60; Thos. O. Moore, 1860–3; Michael Hahn was elected governor in 1863 over the region under Federal control, while Henry W. Allen was governor of the Confederate portion; Jas. Madison Wells, 1865–7; B. F. Flanders (military), 1867–8; Henry C. Warmoth, 1868–72; Wm. Pitt Kellogg (*de facto*), 1872–7; John McEnery (Democratic claimant), 1872–7; Francis T. Nicholls, 1877–80; Louis Alfred Wiltz, 1880–1; Samuel D. McEnery, 1881–8; and Francis T. Nicholls, 1888–92.

CHALMETTE: BATTLE MONUMENT.

Descriptive.—The Creole State is 280 miles from north to south, and 298 miles from east to west, the bordering commonwealths being Mississippi, Arkansas and Texas. The Louisiana lowlands cover 20,000 square miles of alluvial and swamp lands, and the upland prairies and forests include 25,000 square miles. The average elevation is 75 feet, with hils of nearly 500 feet in the north, whence the land slopes away to the south and east. The Mississippi flows down the country on the top of a ridge, which it has formed by its deposits of drift. Above Baton Rouge, the river is bordered by bluffs, which, at Port

Hudson, reach 100 feet in height. The alluvial districts include the bottom-lands of the great rivers, having a breadth of from 20 to 60 miles along the Mississippi, and from twelve to 20 along the Red and Ouachita; and covering about one fourth of Louisiana, with 4,800,000 acres of rich arable front land, in high and profitable cultivation; falling backward by long slopes into immense areas of swamps, adapted in the southern part of the State to rice-culture. The soil is black, dark-red, and reddish-gray, and of incomparable fertility and inexhaustible depth. More than one eighth of Louisiana (4,600,000 acres) is included in the Coast Marsh, extending inland 30 miles, and sometimes overflowed by the Gulf, after long-continued southwestern winds. The banks of the streams, and the islands and *chênières* (oak-groves) in the marsh are cultivated. Since 1880, large tracts have been drained and improved, in St.-Mary's, Terrebonne, Calcasieu, and Cameron Parishes. Much of this area rises but ten feet above the water, and the delta of the Mississippi is largely a morass, below the level of the river, a great part of it in *Marais tremblantes* or floating prairie. A large portion of the Coast Marsh west of the delta is owned by a syndicate; that on the east is given over to hunting and fishing, and a number of New-Orleans sportsmen's clubs are located there. The six Teche parishes were truly called by Longfellow the "Eden of Louisiana," and cover an area equal to that of Connecticut, with exuberantly fertile grassy prairies, broken by silvery bayous and noble forests, and fanned by the Gulf breezes. Here the Teche winds through "the Sugar-Bowl of Louisiana;" and the wonderful prairies of Opelousas and Attakapas run inland for 100 miles. On Orange Island, in Iberia, is the estate of Joseph Jefferson, with noble live-oaks and magnolia and orange groves, and 5,000 cattle. There are several other similar islands—Petit Anse, Cote Blanche, etc., which are simply small hills rising out of the swamp.

NEW ORLEANS: URSULINE CONVENT.

CHALMETTE: NATIONAL CEMETERY.

In the southwest is the land of prairies, covering 2,800,000 acres, and traversed by silvery *coulées* and dense *marais*. The rich grasses of the plains sustain herds of cattle and horses; and large areas are cultivated for cotton, sugar-cane and corn. Calcasieu, the chief of the prairie parishes, is two thirds as large as Connecticut, and has lately received many immigrants from the Western States.

More than half of Louisiana is covered with the valuable and merchantable yellow pines of the Red-River uplands and the southeastern parishes, nearly 50,000,000,000 feet being reported as in the forests, the largest in the South. The cypress of the Mississippi and Atchafalaya swamps, and the oaks of the north, have considerable commercial importance. In the south occur numerous islands of live-oaks, a wood so valuable for ship-building that large tracts of it were reserved for the United-States Navy The mysterious forests of the lower Mississippi contain myriads of tall cypresses, with their silken foliage, and palmettoes, with vivid green spears. Here and there spread broad cane-brakes, and prairies dotted with magnificent live-oaks and magnolias, rich in fragrant

NEW ORLEANS: CATHEDRAL ST. LOUIS.

white blossoms. Over the trees are draped garlands of grape-vines and ghostly streamers of gray Spanish moss.

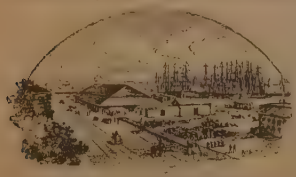
Among the largest lumber and shingle mills in the South are those of the Louisiana Cypress Lumber Company, Limited, with its offices at Harvey (La.) and Chicago (Ill.), and its mills at Harvey, opposite New Orleans. This corporation owns 50,000 acres of forest-land, from which it draws vast supplies of timber; and for the further treatment of this product the company has shingle and saw mills, dry-kilns and machine-shops, and other works, employing altogether nearly 500 men. The great plant at Harvey is one of the leading industries of Louisiana. It is favorably located for home and foreign shipments to various countries. Cypress is a most durable lumber, and it is a fortunate circumstance that Louisiana has such great areas of it, under the efficient control of a wealthy and energetic corporation. No other American house handles such quantities of cypress, both in lumber of all grades, and in shingles. Its capacity in shingles alone is a million a day.

HARVEY: THE LOUISIANA CYPRESS LUMBER CO.

Among the many departments of trade growing out of the agricultural wealth of Louisiana and the adjacent States, one of the most indispensable is that of stave-making, not only for the local products but for certain foreign industries as well. A representative house in this line is Bobet Brothers of New Orleans, whose manufacture and shipment of staves employ a large capital, and many workmen. This strong and conservative firm has the advantage of many years of intimate acquaintance with their trade, for it was founded long before the Civil War, by J. S. Bobet, whose sons have succeeded to its ownership. The Bobet oak-staves are known everywhere as the best to be obtained, and the firm consequently ranks as the largest in its line in Louisiana. Fully 4,000,000 oak-staves have been received from the interior (mainly by river), by this firm, in a single year; and shipped to Spain and Portugal and other European countries, to be made into casks and barrels for wines and other liquors. The firm has large yards on the bank of the river, where their staves are ranked up and assorted into classes, after which they are shipped abroad, to be worked up for their various uses.

NEW ORLEANS: BOBET BROS. STAVE YARDS.

Including its bays, Louisiana has a coast-line of 1,256 miles on the Gulf; and its Chandeleur and other islands have a thousand miles more. Isle-Au-Breton Sound and Chandeleur Sound form good roadsteads. The great curve of coast from Atchafalaya Bay to Cat Island is a perfect maze of islands and peninsulas, bays and bayous, abounding in fish and water-fowl. The coast is lined with land-locked tidal bays and sounds, cutting into the melancholy swamps. Among these are Lakes Borgne, Pontchartrain, and Maurepas, near New Orleans; the Bays of Barrataria, Timbalier, Terrebonne, Caillou, Atchafalaya, Cote-Blanche and Vermilion, west of the Mississippi delta; and Lake Calcasieu and Sabine Lake, in the southwest. The bayous are secondary outlets of the rivers, and some very sluggish rivers are also called by this name. They cover the alluvial region with an intricate net-work of channels, valuable for navigation and draining. The lakes on Red River were mainly caused

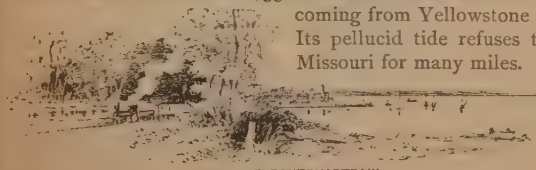


NEW ORLEANS: THE FRENCH MARKET.

by the great raft, which dammed up that stream and caused it to overflow, and since its destruction they have diminished in area, and some of them have become dry, the land being cultivated. The raft was an impassable tangle of logs and other rubbish, filling the Red River for 35 miles. It was removed between 1837 and 1873, by the herculean efforts of the United-States Engineers, and at vast expense. Lake Pontchartrain is a land-locked salt-water estuary just north of New Orleans, which has canals leading to it, as well as railroads to the West End, the seat of the Southern Yacht-Club house and several pleasant hotels; and to Spanish Fort, near the ruins of Fort St. Jean, built by Gov. Carondelet. Many narrow and winding lakes near the Mississippi and Red Rivers are ancient parts of these streams, cut off by changes in the channels, and silted up. Among these are Caddo and Sodo, Bodcan, Bistineau and Cannisnia. Lakes Yatt and Catahoula are large bodies of water, farther down the Red-River Valley.

LAKE BORGNE: SHELL BEACH.

The Mississippi is one of the great rivers of the world. It has a length of 4,382 miles, and with its tributaries drains 2,455,000 square miles. Rising in Itasca Lake, in northern Minnesota, it flows south 1,330 miles to the confluence of the Missouri (2,908 miles long), coming from Yellowstone Park and the Rocky Mountains. Its pellucid tide refuses to mingle with the turbid yellow Missouri for many miles. Above the union of the streams, the Mississippi flows between picturesque high bluffs, and through deep forests and upland prairies, but below it enters the wide alluvial lowlands, through which the remainder of its course is laid, turbid, powerful, marvellously crooked, and with constantly changing channels. During the five years following 1878 the United-States Government paid out over $10,000,000 in improving the navigation of the river. Nearing the Gulf after its long journey from the highlands of Minnesota, the Mississippi loses itself in a maze of creeks, bayous and swamps, covering a low-lying delta of 14,000 square miles, and flows into the salty sea through several outlets, Pass à Loutre, and the Northeast, South, Southwest and other passes. For many miles outside, the muddy river, discolored with finely comminuted aluminous clay, fails to mingle with the blue tide of the sea. Pilot-town, near the mouths of the river, is a settlement of pilots, engaged in steering vessels through the passes. The jetties at the mouth of the Mississippi were built in 1875-9, by Capt. Jas. B. Eads, who received something above $5,000,000 for making here a permanent channel 30 feet deep, where previously there had been but nine feet.



LAKE PONTCHARTRAIN.

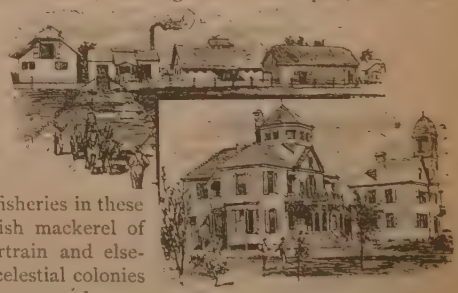
The South Pass runs southeast twelve miles, 700 feet wide, between low and reedy banks of marsh-mud, beyond which lie still bays. The eastern jetty is $2\frac{1}{3}$ miles long, the western jetty $1\frac{1}{2}$ miles, reaching out into the Gulf, through the crest of the bar which lies off shore. The jetties consist of mattresses of long willow rods, two feet thick and 100 feet long, held in

NEW ORLEANS: LEVEE, PICAYUNE TIER.

NEW ORLEANS: SUGAR AND RICE EXCHANGE.

place by rubble-stone, and protected at their seaward ends by palmetto cribs and a capping of huge concrete blocks. These great engineering works have made the Mississippi easily accessible for ocean steamships of the first class; and 5,000-ton vessels, each laden with above 10,000 bales of cotton, pass safely out to sea.

The Mississippi River has 585 miles of navigable water in and along Louisiana, and receives the Ouachita (navigable for 218 miles) and Red (510 miles) Rivers, which are ascended by steamboats far up into Arkansas and Texas. The Ouachita receives Bayou Macon (navigable for 138 miles), Bayou Boeuf, and Bayou Tensas (navigable for 112 miles). Black River and other streams in northern Louisiana are of economic value. The Atchafalaya is practically one of the mouths of the great river, running 217 miles from the Mississippi to the Gulf. Bayou Lafourche, navigable for 318 miles, to Donaldsonville, on the Mississippi, has a commerce of $5,000,000 a year, in sugar, molasses and rice. The Bayous Terrebonne, Black, Teche, Courtableau, and others have hundreds of miles of navigable water. East of the Mississippi are the Amite (navigable to Port Vincent) and Tickfaw, entering Lake Maurepas; the Tchefuncta and Tangipahoa, effluents of Lake Pontchartrain; and Pearl River, the boundary stream between Louisiana and Mississippi, up which small steamboats may go for 103 miles. West of the Mississippi, the Calcasieu and other rivers and bayous flow down out of the prairies into the salty lagoons. The Sabine forms the western frontier. There are valuable fisheries in these waters, the delicious pompano and Spanish mackerel of the Gulf; the shrimp of Lake Pontchartrain and elsewhere, sent by Chinese merchants to the celestial colonies all over the Republic; the oysters of the bayous; the sea-turtles of the islands; and a great variety of river-fish, furnishing valuable food-products.



GOVERNMENT EXPERIMENTAL SUGAR FARM.

Louisiana has more inland navigation (3,782 miles) than any other State, the lower three fourths of its area having no point over 20 miles from navigable rivers. At high water, the streams run much above the level of the land, and are confined in their channels by dykes, or levees, from five to 20 feet high. In order to protect the lowlands from inundation, 1,150 miles of these levees have been built along the Mississippi, Red, Black, Ouachita, Atchafalaya, Lafourche and other streams. Up to 1860, these works had cost $24,000,000, but during the ensuing dark years they fell into ruin, and many of the richest plantations were overspread by the rivers. Upwards of $1,200,000 are spent on the levees yearly, but even this outlay does not prevent disastrous spring floods, like that of 1874, when 30 parishes were inundated; or of 1882, resulting in a loss of $20,000,000; or of 1885, destroying $7,000,000 worth of property; or the terrible inundation of 1890, which cost the State $11,000,000.

NEW ORLEANS: OLD COURT BUILDING.

Agriculture yields above $50,000,000 a year in Louisiana, although but a tenth of her soil is under cultivation. "The Coast," from New Orleans to Baton Rouge, along the Mississippi is largely devoted to rice and sugar, while the upper country yields mainly corn and cotton. The State produces yearly 20,000,000 bushels of corn, and abundant crops of oats and sweet

potatoes. There are 1,400,000 head of live-stock, valued at $22,000,000. Southern Louisiana produces figs and bananas, peaches and plums, quinces and other fruits of value. The Mississippi below New Orleans (and especially for the 30 miles of coast above Fort Jackson) is lined with beautiful orange-groves. The figs and bananas of Plaquemines form a large crop. Great quantities of early vegetables are sent north by fast freight. The famous jet-black and highly flavored tobacco of St.-James Parish, which is fermented in pots and sent away in small muslin-covered and corded carrots, was named after the Spaniard, Señor Perique, who settled here in 1820, and sowed Kentucky and Virginia seed.

NEW ORLEANS: CUSTOM HOUSE.

The cultivation of rice has advanced mightily within 20 years, displacing sugar in some sections, and being carried on principally in Plaquemines, St.-Mary's, Calcasieu and other parishes, and on the margins and islands of the swamps. It varies from 60,000,000 to 120,000,000 pounds a year. There are 1,500 rice-plantations, with 50,000 persons engaged, and a capital of $9,000,000. Rice is sown like wheat, on carefully prepared ground, water being let in around (but not over) it, as soon as it is two inches high, and drawn off when the rice reaches 18 inches. It is harvested and threshed like wheat. Cotton is one of the great crops, covering more than a third of the cultivated ground, and yielding yearly 550,000 bales. The best grades are raised along the Mississippi alluvial belt, above Red River. Carroll Parish produces more cotton (a bale per acre) than any other region in the world. The cotton-seed-oil business has of late attained great proportions, and New Orleans works up 180,000 tons of seed yearly. The oil is largely used for home consumption, in the manufacture of lard, and millions of gallons are exported yearly to Europe, to be returned to America as fine olive-oil. The pulp (or oil-cake) is used for feeding cattle and horses; and from the residuum the factories make stearine, glycerine and soap. The Union Oil Mills were among the earliest pioneers in the business. They were established in 1855, but for many years made slow progress in developing their industry. Since the war success has crowned their efforts, with the perfecting of processes, the founding of a great export-trade, and the widening areas of the use of cotton-seed cake for cattle-feed, and for fertilizing land. The Union Oil Mills are at Gretna, across the river from New Orleans, and date from the year 1871. They cover five acres, and employ 200 workmen. Their daily capacity is 200 tons of seed. The offices of the company are in the Cotton Exchange, at New Orleans, and in Providence (R. I.); and they control the Gretna and Crescent, Maginnis (New Orleans), Hamilton (Shreveport), Monroe and Baton-Rouge crude-oil mills, and the refineries at Providence, Gretna and New Orleans. This powerful company is connected with the American Cotton-Seed-Oil Trust, which was organized to prevent over-production, and otherwise regulate the industry.

GRETNA: UNION COTTON-SEED-OIL MILL.

The rapid and healthy advancement of trade in the natural products of Louisiana has resulted in the development here of some of the chief commission merchants and factors in the Union. Among the foremost of these is the great house of S. Gumbel & Co. (founded in 1870), who rank as the largest receivers of actual consignment cotton in New Orleans, handling sometimes as high as 70,000 bales in a

NEW ORLEANS: S. GUMBEL & CO. COTTON PRESS.

SOUTHDOWN PLANTATION: CUTTING CANE.

single season. Avoiding all speculative business, this strong and conservative firm strictly confines itself to the receipt and disposition of the great Louisianian staples, and yearly increases the volume of its business. Under the direction of Isidore Hechinger, one of the partners, a vigorous trade is also carried on in sugar, molasses and rice, drawn from the broad plantations of the lowlands, and shipped from New Orleans to a hundred distant ports. S. Gumbel & Co. practically own and operate the Orleans Cotton Press, the largest of the many cotton-compress warehouses in New Orleans, which were built to accommodate the immense receipts of the great staple of the Gulf States. In one part of the city there are $8,000,000 invested in these cotton-presses and warehouses.

Sugar-Raising supports half the population of Louisiana, employing $90,000,000 in land and buildings, and yielding $25,000,000 a year. Along the thirty leagues of bottomless alluvion, extending from New Orleans to Baton Rouge, extends a long succession of sugar plantations, before the war the scene of a patriarchal and luxurious life. The illimitable green sea of cane and rice-fields is broken only by dark groves of live-oaks and magnolias; the broad and low mansions of the planters, wide verandaed and spacious; and the mills and stables and negroes' cabins of each little independent community. In 1861 there were 1,400 plantations, occupied by 150,000 people, and producing in that year 460,000 hogsheads of sugar. Four years later the war-devastated State yielded but 10,000 hogsheads. The crop of 1890 was the largest since the war, reaching 330,000 hogsheads of sugar and 500,000 barrels of molasses. The product is from 20 to 30 tons of cane an acre, 90 per cent. being juice, of which 15 per cent. is sugar, so that each 100 pounds of cane holds 13½ pounds of sugar. The act of Congress, passed in 1890, giving a bounty of from 1¾ to 2 cents a pound on all sugar, of a certain grade, produced in this country has had a stimulating effect on the industry.

SOUTHDOWN PLANTATION: SUGAR-HOUSE.

Down near Houma, in the far-extending delta parish of Terrebonne, is the great Southdown Plantation, covering 5,000 acres, formed by a union of older estates, and for many years under the direction of Henry C. Minor, an old and experienced sugar-planter, whose father founded the original Southdown in 1827. The wonderfully rich soil of this section produces sugar-cane of the best quality, and in large and profitable crops. For the manipulation of this valuable product Southdown has a costly and efficient sugar-house, a refinery and other needful adjuncts, and employs 150 hands. The yearly product is 3,000,000 pounds of sugar and 2,000 barrels of molasses, from cane grown on the estate, and through all the vicissitudes of the sugar business, this plantation has never gone behind in its operations. The plantation is contiguous to the railroad, and the steamboats plying up and down the winding bayous. The parish in which Southdown stands was settled over a century ago by Acadian refugees from Nova Scotia, and their descendants still inhabit these rich and beautiful lowlands.

SOUTHDOWN PLANTATION: HENRY C. MINOR.

SHADYSIDE PLANTATION : JAMES W. BARNETT.

Shady-Side Plantation is away down in the Delta, near Centreville, in St.-Mary's Parish, and covers 7,000 acres (more than a third of which is under cultivation), being a consolidation of four oldtime plantations. It is owned and conducted by John Foos and James W. Barnett, two Ohio men, who invested down here in 1870, and have since established one of the largest and best-equipped sugar estates in the South. The sugar-house at Shady Side is an enormous structure, built in 1889 from carefully studied plans, fitted with all the valuable machinery used in the most advanced modern processes of refining, and capable of a very large output. It is the largest plantation sugar-house in the Bayou-Teche country, and one of the best equipped in the State. Many interesting experiments have been carried on at Shady Side, as to using *legrasse* to make pulp for manufacturing paper, and in other directions, applying the well-known ability and ingenuity of Ohio men to enlarging the resources of Louisiana. Mr. Foos still retains his home and enterprise in Springfield, Ohio; but Mr. Barnett moved down to the plantation in 1870, and has ever since devoted himself with the industry and business methods of the North to the utilization of the immensely productive plantations of the South. In all the surrounding country Mr. Barnett's name is synonymous with good fellowship, hospitality and generosity, combined with an exceptionally successful financial undertaking.

FOOS & BARNETT'S SHADYSIDE PLANTATION, ON THE BAYOU TECHE.

The famous Calumet Plantation, on the banks of the Bayou Teche, near Pattersonville, in several respects leads the world of American sugar-estates. Its proprietor, Daniel Thompson (a native of Maine, and longtime a resident of Chicago), was by some twelve years Louisiana's pioneer in the use of commercial fertilizers. He was by 16 years the first private individual in Louisiana, and probably by ten years the first in the world to introduce the chemical laboratory, for agricultural research upon a sugar-cane estate. Wibray J. Thompson, his son, was by four years the pioneer of the United States in the introduction of chemical and physical investigations directly applied in the actual conduct of manufacture, being for that period the sole scientist engaged in this field in America. The experimentation with fertilizers led from the first to a practice, the wisdom of which subsequent investigations elsewhere have confirmed; while those in the factory have produced practical industrial results, which had been believed altogether impossible. These gentlemen are also now the first and only private parties in the world engaged in the scientific development, by seed-selection, of

SHADYSIDE PLANTATION : CANE-HOUSE.

CALUMET PLANTATION : SUGAR-HOUSE.

CALUMET PLANTATION: DANIEL THOMPSON.

the sorghum plant, by which, as an auxiliary crop to tropical cane, they hope eventually to double the period of manufacture, which does not now exceed 60 days a year. Their success in this, to date, has been phenomenal. The chemical, mechanical and financial controls, particularly the last two, are without parallels for completeness and scientific value in the world's cane-sugar industry. The results of their work have been published from the first, for the benefit of all others engaged in sugar production, and the plantation is known wherever sugar is made. The exceptionally fine record made by Calumet shows a continuous development of product, and whereas in earlier days from 80 to 110 pounds of sugar were obtained from a ton of cane, now 200 pounds are extracted. Most of this advance has come since 1880, and it is expected that the intricate experiments continually in progress here will achieve still higher results. This beautiful and notable plantation covers 6,000 acres, and its management combines Northern industrial methods and business organizations with Southern hospitality and sympathy.

CALUMET PLANTATION: CANE-HOUSE.

Among the Northerners who have become identified with Louisiana since the close of the "late unpleasantness," and have borne a prominent part in building up its industries, are the Ames family of Massachusetts, so well and widely known—Oakes A., Oliver and Frank M. Ames, the heirs of Oakes Ames, to whom this country is so much indebted for its railroad development. They are the owners of one of the largest estates in this land of broad domains, covering 13,000 acres, in the Parish of Jefferson, directly opposite the city of New Orleans, their property having a river-front of two miles. The domain includes, among others, the South Side and Estelle Plantations, formerly known as the Millaudon Plantation. Their land is traversed by the Southern Pacific and Texas & Pacific Railways, with a station at Amesville. They were among the first to introduce the modern methods and appliances for the cultivation and harvesting of the crop, and the equipment is among the best and most efficient in the State. They have six miles of permanent and portable railroad tracks; and introduced the car for handling sugar-cane, which has come into general use in all sugar-raising countries, and has been of great benefit to planters. They were among the first to use commercial fertilizers, and to introduce methods by which actual information as to results might be obtained. Their private or protection levee is over seven miles in extent, and by it they were enabled to protect their cultivated land from the overflow of 1884, which was so disastrous in its results. The capacity of the sugar-house (which is in plain sight from the city of New Orleans) is from 60,000 to 70,000 pounds of sugar a day, or about 5,000,000 pounds during the sugar-making

SOUTH-SIDE AND ESTELLE PLANTATIONS: OAKES A., OLIVER AND FRANK M. AMES.

SOUTH-SIDE PLANTATION: FROM THE MISSISSIPPI.

season. Their crop in 1891 exceeds 3,000,000 pounds, all of which goes to New Orleans.

SOUTH-SIDE PLANTATION: CUTTING CANE.

The Louisiana Sugar Refinery is the largest in the Southern States, and covers three entire squares of ground on Custom-House and Decatur Streets, New Orleans. This mammoth establishment has the most modern and ingenious machinery, and can turn out 1,250,000 pounds of sugar daily. It receives the plantation sugars of Louisiana, Cuba and the Sandwich Islands, besides large quantities of beet-sugar, and produces therefrom all grades of refined sugar and syrups, which find a market all over the United States. About 750 men serve this corporation, whose yearly pay-roll exceeds $350,000. The Louisiana Refinery is under the presidency of John S. Wallis, and dates its origin from the year 1883. It is one of the commanding industries of New Orleans, and its products are unexcelled for their excellence and standard merit. The Planters' Refinery a few years ago came under the same ownership as the Louisiana Refinery.

NEW ORLEANS: LOUISIANA SUGAR-REFINERY.

Down in the rich and beautiful Gulf parish of St. Mary's, and close to its shire-town, Franklin, stand the immense new buildings of the Caffery Central Sugar Refinery, erected after the designs of Sully & Toledano, the New-Orleans architects, and fully equipped with all the modern machinery and inventions used in the processes of refining sugar. The Caffery plant has been constructed with unusual care and solidity, and shows the best results of modern scientific processes as applied to this important industry. The transportation of the product of the plantations to and from the refinery is made easy by spur-tracks running from the Morgan line of railway into the works. The owner of this notable new enterprise is John A. Morris, one of the best-known of Louisiana's millionaires, who has invested $600,000 in this bold venture. The introduction of the Caffery Refinery is destined to work a revolution in the business throughout the Gulf parishes. The cane ground here is bought from the small farmers in the neighborhood and along the railroad, and the great success of this institution demonstrates that central sugar-houses are desirable, and many more will be built. The capacity of the plant is 500 tons of cane a day. Thomas Sully is the general manager of the refinery.

NEW ORLEANS: LOUISIANA SUGAR-REFINERY.

FRANKLIN: CAFFERY CENTRAL SUGAR-REFINERY.

Another interesting phase of this business is seen in the case of the men who are at once active sugar factors or commission merchants and owners of great plantations. Foremost among them is Richard Milliken, the owner of several plantations, all of which are large producers of sugar. He has been famous for many years for his liberality in advancing money on growing crops. His financial foundation was of so solid a character that even the costly experiences of the bad seasons of 1878–9 and 1882–3 failed to shake his high credit; and to this

NEW ORLEANS: RICHARD MILLIKEN, SUGAR FACTOR.

day he has remained actively in the field, in intimate connection with the foremost sugar-planters of Louisiana, and wielding a powerful influence in the development of this valuable industry. It is said that as a factor or broker he has handled more sugar than any individual in the South. In 1840, after he had been a resident of New Orleans for eight years, Mr. Milliken became a sugar-broker, and carried on this business with remarkable success until 1887. He handled one third of the sugar-crop of Louisiana. In 1870 he became also a sugar-factor, and has since handled one fifth of the crop, or 40,000 hogsheads of sugar and 60,000 barrels of molasses yearly. In 1872, Mr. Milliken acquired the Unity plantation; in 1876, the Waterford; and since then the Fairfield, Killana and Cedar-Grove estates. The Milliken plantations employ 1,000 men, and have a yearly product of 5,000,000 pounds of sugar and 300,000 gallons of molasses.

Louisiana is a land of flowers, and the fragrance of orange blossoms, delicate magnolias, and jessamine, blend with the perfume of innumerable roses, and miles of wild flowers along the alluvial plains. The most notable animals are the panthers of the swamps, the black and brown bears of the uplands, and the great alligators of the bayous. Lizards, turtles and snakes of many kinds dwell in and near the lowland waters, and here also is a great array of the waders, ibises, cranes and herons. Various eagles and many hawks and gulls, and the patron-bird of the State, the pelican, fly over the bayous; and myriads of mocking-birds and finches, cedar-birds and orioles fill the air with their songs. The uplands are the home of partridges and grouse, pigeons and wild turkeys.

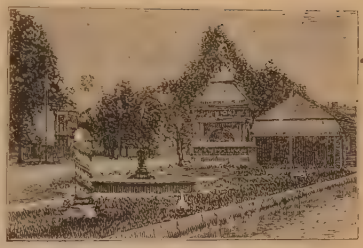
NEW ORLEANS: COTTON EXCHANGE.

The Climate varies greatly, from New Orleans, with its average temperature of 69.54°, and rainfall of 73 inches, to Shreveport, with a yearly average of 64° and a rainfall of 47 inches. It may be called semi-tropical, and is strongly modified by the large lakes and rivers and the Gulf-winds. Droughts are rare; light frosts visit the sugar-region but once in three years; and snow gets to New Orleans but once in ten years. The northern counties are whitened by occasional snows and harsh northerly storms, dropping the temperature to 15°. The heavy mortality of Louisiana in old times has visibly abated with the development of sanitary science. The death-rate of New Orleans was 59 per thousand in 1850 60, 40 in 1860 70, 35 in 1870 80, 29 in 1880 86, and is 25 to-day, nearly two-thirds of the deaths being negroes. Consumption causes one seventh of the deaths; and malarial diseases, one fifteenth. The saline and breezy air of Louisiana is beneficial for sufferers from rheumatism, catarrh, bronchitis and consumption.

The Government abides in a group of executive officers, elected by the people for four years; the General Assembly, made up of 36 senators, and from 74 to 98 representatives; the Supreme Court of five judges, appointed for eight years; and judges of the Courts of Appeal and District Courts. The District judges are elected, except in New Orleans, where they are appointed by the governor. The Appeal judges are elected by the Legislature. The parishes correspond with the counties in the other States. The Capitol is a picturesque Elizabethan building at Baton Rouge, with battlemented

BATON ROUGE: LOUISIANA STATE UNIVERSITY.

towers and Gothic windows. The Louisiana State National Guard is organized in the parish of Orleans, and includes the First Brigade. The Special Militia Force of the State covers the troops of the interior parishes, four companies about Baton Rouge forming the First Battalion; four in the northern parishes forming the Second Battalion; and several companies of cavalry and artillery. There are also independent companies, one French, two Italian, one colored, and the renowned Battalion of Washington Artillery.



NEW ORLEANS: GAYARRE PLACE.

The Penitentiary at Baton Rouge has 800 convicts (mostly colored), and is conducted on the lease system, the prisoners being set to work on the levees and other public enterprises. There are Houses of Refuge for boys and girls, at New Orleans, the seat also of the great Charity Hospital, and many other benevolent institutions. The Insane Asylum at Jackson has 500 patients; and the Louisiana Retreat is at New Orleans. The Louisiana Institution and Industrial Home for the Blind and the Institution for the Deaf and Dumb are at Baton Rouge.

Education is offered by the State more freely than it is accepted by the people. Fewer than one fifth of the children of proper age attend the schools. The buildings are inferior, and instruction is given but four months in each year. As a result, the illiterates include 112,000 among the voting men alone. Four fifths of the illiterates are negroes. The State Normal School is at Natchitoches; and New Orleans also has a normal school. The Tulane University of Louisiana was founded by the State in the year 1837, as the University of Louisiana, and took the name of Tulane from Paul Tulane of New Jersey, who amassed a fortune in New Orleans between 1822 and 1873, and retired to his native State. Between 1882 and 1887 he gave $1,100,000 for education, and the institution thus endowed acquired the valuable franchises and handsome classical buildings of the old University at New Orleans, and has attained a high efficiency. Tulane University has 25 instructors and 248 students; the Law Department (founded in 1847), five instructors and 52 students; the Medical Department, eleven instructors and 287 students. The H. Sophie Newcomb Memorial College, founded by Mrs. Warren Newcomb of New York, was opened as a department of Tulane in 1887. It has handsome buildings on Washington Avenue. There is also a free drawing school, with 310 students; a manual training school; and a valuable gallery of original paintings and statuary. The Tulane-University library contains 20,000 volumes; and the State Library, in the Law Building, has 26,000. The Louisiana State University was opened in 1855, at Alexandria, with Col. W. T. Sherman as commandant. Reopened after the war, it was moved to the Deaf and Dumb Asylum at Baton Rouge, in 1869, and now occupies the old United-States Arsenal, on a high bluff north of the city, surrounded by superb oaks, and overlooking the Mississippi for many leagues. The State Agricultural College is connected with the University, and there are commercial and civil-engineering schools. The University is declining, falling from 200 students in 1880 to 69 in 1887, and financial straitness has constrained reducing the professors' salaries. The Southern University at New

NEW ORLEANS: TULANE UNIVERSITY.

NEW ORLEANS: ST.-ROCH'S CHAPEL.

Orleans is endowed by the State for colored youth, and has preparatory, academic, normal and industrial departments. Streight University (Congregational), also at New Orleans, is for white or colored students. New-Orleans University is also for blacks or whites, and has the Gilbert-Haven School of Theology (Methodist). Leland University is a Baptist school. Each of these universities has from 400 to 600 students, all colored. The college of the Immaculate Conception, founded by the Jesuits at New Orleans, in 1847, has 160 students, besides 235 in commercial and preparatory courses. The Catholics also conduct Jefferson College, St.-Mary's, and St.-Charles College, at Grand Coteau. The Centenary College (Methodist) is at Jackson; and Keachie College (Baptist) is at Keachie.

NEW ORLEANS: CONVENT OF THE GOOD SHEPHERD.

The Howard Memorial Library was the outgrowth of a generous plan formed by Charles T. Howard, and carried out, after his death, by his daughter, Miss Annie T. Howard, who erected in New Orleans this beautiful building as a monument to her father. Subsequently, she endowed it with $115,000 (increased by kinsmen to $200,000); and gave the entire property and fund to a board of trustees, for the citizens of New Orleans as a free reference-library. The librarian is Charles A. Nelson, a Harvard graduate, formerly cataloguer of the Astor Library (New York). The building was designed by the greatest of American architects, H. H. Richardson (a native of Louisiana); and constructed by Norcross Bros. of Worcester (Mass.). It is in the Romanesque style, of ironstone, with a high pitched roof and dormers, and turrets covered with red terra-cotta tiles from Akron (Ohio). The great reading-room, with its monumental fire-place, and the imposing book-room, with 18,000 volumes in its alcoves, have a restful air of luxury and refinement, in their rich and subdued interior finish. The whole institution is one of the most beneficent and most attractive features of New Orleans.

NEW ORLEANS: THE HOWARD MEMORIAL LIBRARY.

The Newspapers of Louisiana number about 150. Of these ten are in French, three in German, and one each in Spanish and Italian. The foremost newspaper in the Gulf States, and one of the great exponents of Southern thought and sentiment is the New-Orleans *Times-Democrat*. The *Times* was founded in 1863, to support the Union cause, which then had no advocate in the State; and after the war became an independent Democratic journal. The *Democrat* was organized late in 1875, as a Democratic campaign evening paper, under the editorship of Robert Tyler, son of ex-President Tyler. It became a morning paper, and after many vicissitudes, passed into the sole ownership of Major E. A. Burke, State Treasurer, in 1881, who also in the same year bought the *Times*, and consolidated the two papers under the present title. In 1883, Page M. Baker became editor, and in 1884 was elected manager. In 1888 the Burke interest was sold. Mr. Baker is now both manager and editor-in-chief; and the paper continually advances in circulation and in influence. It has been foremost in advancing the industrial development of the South, in bringing about a

NEW ORLEANS: TIMES-DEMOCRAT.

NEW ORLEANS: METAIRIE CEMETERY.

larger trade with Latin America, in special telegraphic-news service throughout the South, and in leading great charitable movements. It owns both the Associated-Press and the United-Press franchises. Its relief steamboat averted vast distress in the overflowed districts of Louisiana and Mississippi; and its intrepid exploring expedition was the first to traverse the Everglades of Florida.

The Catholic population of the State is about 320,000, with 125 churches. The Methodists and Baptists have between 20,000 and 25,000 members each, and the remaining Protestant sects have 20,000 members in all.

National Institutions.—There are four United-States forts in Louisiana, Jackson and St. Philip, 73 miles below New Orleans, for the defence of the Mississippi, and Macomb and Pike, near Chef Menteur, guarding the entrances to Lake Pontchartrain. All these works are ungarrisoned and dismantled, the only National troops in the State being two companies at Jackson Barracks, six miles from New Orleans. The National Cemetery at Chalmette, on Jackson's battle-ground, has 12,192 graves, 1,800 of them covering New-England soldiers, who died in this region during the Civil War. The National Cemetery at Alexandria contains 1,300 victims of the Red-River campaigns; that at Port Hudson, nearly 4,000 Union soldiers, who died during the famous siege; and that at Baton Rouge, those who lost their lives in defending the city against Confederate assaults.

NEW ORLEANS: A CEMETERY WALK.

Chief Cities.—New Orleans is the largest cotton-mart in the world (except Liverpool), and receives 2,000,000 bales yearly. Six trunk-line railways centre here, and several large steamship lines. The trade includes Central and South-American fruits (2,500,000 bunches of bananas yearly), Texan and Mexican wool (30,000,000 pounds yearly), and hides (12,000,000 pounds) and Southern lumber and iron. The tonnage, commerce and population of the port are now greater than ever, with immense exports of sugar, cotton and rice to New York and Liverpool. The Mississippi is half a mile wide opposite the city, though 107 miles from the sea, and furnishes a noble avenue for great numbers of ships and river-steamers, which lie along the levee in ranks. The city abounds in rich bits of color, the semi-Oriental slave-market, the vivid gardens of the French, the miles of shipping, the brilliant theatres, the noble old Cathedral St. Louis and the court buildings beside it, the fine drives on the Shell Road, the venerable Spanish Fort on Lake Pontchartrain, the many-colored streets of the old Creole quarter, the quaint gables and peaks and dormers of the Rue Royale, the bright flower-beds and trim shrubbery of Jackson Square, and the fragments of the Spanish barracks. Mardi Gras in New Orleans is the most picturesque of American festivals, and abounds in masks and revelry. The pleasant parks, Audubon, Lafayette, the Place d'Armes, and others, contain the bronze equestrian statue of Gen. Jackson, Hiram Powers's marble statue of Franklin, and the Lee Monument; an equestrian statue of Gen. A. S. Johnston and other memorials. Metairie Cemetery with its interments above ground is noted. Its entrance was designed by Sully & Toledano.

NEW ORLEANS: PICKWICK CLUB.

Baton Rouge, the capital city, is on the Mississippi, on the first spur of high land that reaches the river, and has many quaint old houses, and an air of languid quiet. Of late years it has developed a large country trade with the adjoining

parishes. Shreveport, the metropolis of northern Louisiana, on the Red River, has railways, steamboat lines, and factories, and ships great quantities of cotton. It stands in an alluvial valley of unexcelled fertility.

In Commerce Louisiana has stood second only to New York in her exports, with over $110,000,000 in yearly value, $20,000,000 in imports, and a coastwise and interior trade of $250,000,000. These amounts fell off very much between 1870 and 1880, but the trade of the city is again improving.

NEW ORLEANS: JESUIT COLLEGE AND CHURCH.

Finances.—Louisiana's net State debt was $23,000,000 in 1880; and this was reduced by 1890 to $12,500,000. Of the 13 National banks in Louisiana, eight are in New Orleans. The New-Orleans National Bank, one of the foremost financial institutions of the Southwest, embodies in its Board of Directors many of the prominent merchants of the city, and has a close and beneficial relation to the entire business community, holding over $2,000,000 worth of discounted bills. The total resources of this great corporation reach nearly $5,000,000, the deposits being $4,000,000, and the capital and surplus amounting to over $800,000. The bank has correspondents in all the principal American cities, and makes collections, investments and telegraphic transfers of money. The stock of the New-Orleans National Bank (Albert Baldwin, president) is quoted at over seven times its par value, a fact which indicates the confidence reposed in this strong bulwark of finance. Its handsome bank building was designed by Sully & Toledano.

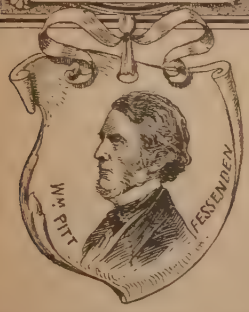
NEW-ORLEANS: NEW-ORLEANS NATIONAL BANK.

Railroads.—The great Texas & Pacific Railway extends from New Orleans to Shreveport, and thence across the State of Texas, with various branches and connections, and extensive wharves and warehouses on the Mississippi, near New Orleans. It owns over a thousand square miles of land in the Mississippi and Yazoo Valleys, and sells large and small tracts here for low cash payments and long credits. The line does an immense business in transporting cattle, lumber, cotton, sugar, molasses and rice. The Southern Pacific, from New Orleans to Los Angeles and San Francisco, controls Morgan's Louisiana & Texas line. The Louisville & Nashville, from New-Orleans to Mobile (140 miles) has 38 miles; the New-Orleans and North-Eastern (Queen & Crescent), 43 miles.

The Anchor Line has eleven large steamboats plying between New Orleans and Vicksburg and St. Louis; and the Southern Transportation Company runs seven steamboats between New Orleans and Cincinnati. Minor lines make regular trips to the Upper Coast and Lower Coast, the Red and Ouachita Rivers, and Bayous Teche, Tensas and Macon. The Morgan steamships run from New-Orleans to New York, Cedar Keys, Punta Gorda, Key West, Havana, Vera Cruz, Progeso, Santiago and Nicaragua.

NEW ORLEANS: THE CHARITY HOSPITAL.

The Manufactures of Louisiana include small quantities of clothing, machinery, cotton-seed oil, cigars, malt liquors, flour and meal, lumber, and sugar. The output of New Orleans alone was $45,000,000 for the year 1890.



HISTORY.

Whether the Norsemen, Biarne in the year 996, and Thorfinn in 1008, visited the Maine coast, no one can surely tell. Many believe that they did. Cortereal, Verazzano, Gomez and other navigators sailed down the Gulf of Maine before 1530; and in 1603, Martin Pring spent a pleasant June on Penobscot and Casco bays and along the Maine rivers. In 1604, De Monts founded a French colony on Neutral Island, in the St. Croix River; in 1605, Waymouth set up crosses at Monhegan and Pentecost Harbor, to claim the land for England; in 1607, Popham established an ephemeral Anglican colony at Phipsburg; and in 1613, a French Jesuit mission came into existence at Mount Desert, and was destroyed by a Virginian fleet. In 1614, Capt. John Smith ranged the coast in an open boat from the Penobscot to Cape Cod. Sections of Maine were granted to Capt. John Mason, the Duke of York, Sir Ferdinando Gorges and other adventurous promoters of colonies; and settlements arose along the coast, at Pemaquid, Monhegan, Saco, and other points. In 1652 Massachusetts began to govern Maine, and 25 years later she bought out the Gorges' rights. By the charter of William and Mary (1691), Massachusetts, Plymouth, Acadia, Sagadahoc and Maine were consolidated into "The Royal Province of Massachusetts Bay." The partisan warfare of D'Aulnay and La Tour, the settlement of the Baron de St. Castin on Penobscot Bay, the forays of the Indian chieftains Mogg Megone and Madockawando, and the Jesuit missions and crusades, have touched this iron-bound coast with the halo of romance, and furnished themes for the poems of Longfellow and Whittier.

During the long struggles with the French and Indians Maine suffered dreadfully. Only five settlements remained at the close of King Philip's War, and in the first French War every town east of Wells went down. Terrible return blows were struck by the Colo-

STATISTICS.

Settled at	Pemaquid.
Settled in	1630
Founded by	Englishmen.
Admitted as a State,	1820
Population, in 1860,	628,279
In 1870,	626,915
In 1880,	648,936
White,	646,852
Colored,	2,084
American-born,	590,053
Foreign-born,	58,883
Males,	324,058
Females,	324,878
In 1890 (U. S. census),	661,086
Population to the square mile,	21.7
Voting Population,	187,323
Vote for Harrison (1888),	73,734
Vote for Cleveland (1888),	50,481
Net State Debt,	$3,408,229.70
Real and Personal Property,	$309,000,000
Area (square miles),	33,040
U. S. Representatives (1893),	4
Militia (Disciplined),	1,090
Counties,	16
Post-offices,	1,125
Railroads (miles),	1,338
Vessels,	221
Tonnage,	409,664
Manufactures (yearly),	$79,825,393
Operatives,	52,949
Yearly Wages,	$13,621,538
Farm Land (in acres),	6,552,578
Farm-Land Values,	$102,357,615
Farm Products (yearly)	$21,945,489
Public Schools, Average Daily Attendance,	98,641
Newspapers,	175
Latitude,	43°4′ to 47°31′ N.
Longitude,	66°45′ to 71°6′ W.
Temperature,	—21° to 97°
Mean Temperature (Augusta),	45°

CHIEF CITIES AND THEIR POPULATIONS (CENSUS OF 1890).

Portland,	36,425
Lewiston,	21,701
Bangor,	19,103
Biddeford,	14,443
Auburn,	11,250
Augusta,	10,527
Bath,	8,723
Rockland,	8,174
Calais,	7,290
Waterville,	7,107

nial troops at Fryeburg, Norridgewock, and elsewhere. In Queen Anne's War the settlements suffered devastation by torch and tomahawk during a long decade. For many years the roaring of hostile cannon echoed around the walls of Pemaquid, Castine, York, and other fortresses and villages. But the colonists fought the savages with heroic tenacity, and pushed line after line of settlements inland.

PORTLAND: LONGFELLOW'S BIRTHPLACE.

A Maine regiment served in the battle of Bunker Hill, and throughout the Revolution the long and exposed coast was ravaged by the royal fleets. The British armed vessel *Margaretta* suffered capture at Machias after a sanguinary battle. "The Lexington of the Sea." In 1775, a British fleet destroyed Portland by bombardment, burning 414 buildings.

During the War of 1812 British expeditions captured Eastport, Robbinston, Castine, Belfast, Hampden, Bangor, and Machias, inflicting great damage. In 1819, two thirds of the inhabitants of the District of Maine voted to separate from Massachusetts, with whose hearty and kindly approval and help this change was effected, and Maine, in 1820, entered the Union, the youngest of the Atlantic States, except Florida. The Aroostook War, in 1837–9, arose from boundary disputes between Maine and New Brunswick, and the border was garrisoned by regulars and local militia, under Gen. Scott.

LUBEC AND THE NARROWS.

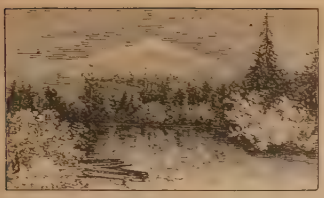
During the late civil war Maine sent out 70,000 troops, and incurred a war debt of $12,000,000. The only disturbance of her territory occurred in 1863, when a party of Confederate privateersmen cut out the United-States revenue-cutter *Caleb Cushing*, in Portland harbor. They put to sea in their prize, but were hotly pursued by hastily armed local steamboats, and captured. In 1870 and afterwards a number of families were brought over from Sweden and placed upon the rich Aroostook lands. In such ways, and by the inflowing of French Canadians, the State is repairing the losses caused by the vast westward migrations of its people. The famous "Maine Law" policy, begun in 1846 and 1851, imposes severe penalties on the manufacture, selling or drinking of intoxicating liquors. It has not suppressed these evils, but has abated them; and drunkenness and tippling are held in disrepute.

The Name of Maine is due to its geographical features. "Years before the name appeared in the charter, the territory was designated by English mariners 'The Maine,' to distinguish it from its insular parts. A useful and expressive word, constantly applied to it, was adopted for the English name of the territory. In the grant by Charles I. to Sir Ferdinando Gorges it is recorded: 'All that Parte, Purport and Porçion of the Mayne Lande of New England we doe name, ordeyne and appoynt shall forever hereafter bee called and named The Province or Countie of Mayne.'"

The mast pine, an evergreen of towering height, is the pride of the Maine forests, and gives rise to the popular name of THE PINE-TREE STATE.

The Arms of Maine display a silver shield, bearing a pine tree, with a moose at its foot; the word MAINE below; the motto DIRIGO ("I direct") above; the crest, a star; and the supporters, a husbandman and seaman.

WEST QUODDY LIGHT.



MOUNT KATAHDIN.

The Governors of the State have been: William King, 1820; William Durkee Williamson (acting), 1821; Albion K. Parris, 1822–7; Enoch Lincoln, 1827–9; Nathan Cutler (acting), 1829–30; Jonathan G. Hunton, 1830–1; Samuel Emerson Smith, 1831–4; Robert P. Dunlap, 1834–8; Edward Kent, 1838–9; John Fairfield, 1839–40; Edward Kent, 1840–1; John Fairfield, 1841–3; Edward Kavanagh (acting), 1843–4; Hugh J. Anderson, 1844–7; John W. Dana, 1847–50; John Hubbard, 1850–3; Wm. G. Crosby, 1853–5; Anson P. Morrill, 1855–6; Samuel Wells, 1856–7; Hannibal Hamlin, 1857; Joseph H. Williams (acting), 1857–8; Lot M. Morrill, 1858–61; Israel Washburn, Jr., 1861–2; Abner Coburn, 1863–4; Samuel Cony, 1864–7; Joshua Lawrence Chamberlain, 1867–71; Sidney Perham, 1871–4; Nelson Dingley, Jr., 1874–6; Selden Connor, 1876–9; Alonzo Garcelon, 1879–80; Daniel F. Davis, 1880–1; Harris M. Plaisted, 1881–3; Frederick Robie, 1883–7; Joseph R. Bodwell, 1887; Sebastian S. Marble (acting), 1887–9; and Edwin C. Burleigh, 1889–93.

Descriptive.— Maine is nearly as large as the other five New-England States combined. The Atlantic Ocean bounds it on the south and southeast; New Hampshire extends along the west; and the Canadian provinces of Quebec and New Brunswick, on the west and the east, bend to a union over Maine's northern frontier. The most easterly point of United-States land is the bold rocky promontory of West Quoddy Head, near Lubec. The surface of Maine is beautifully diversified. The coast hills include Agamenticus (673 feet), Mount Megunticook (1,457 feet), and Green Mountain, on Mount-Desert Island (1,527 feet). An ascending slope runs 140 miles inland to the divide, whence the northern slope of 7,400 square miles descends 80 miles to the Canadian frontier. There are several ranges of wooded mountains, breaking at their summits into noble craggy peaks. Foremost among these is Mount Katahdin, 5,385 feet high, isolated in the lonely Penobscot wilderness. Around Moosehead Lake rise the fine peaks of Squaw Mountain, 3,262 feet; Mount Baker, 3,589; and the Spencer Mountains, 3,135. In western Maine are Mount Bigelow, 3,300 feet; Mount Abraham, 3,387; Saddleback Mountain, 4,000; Mount Blue, 3,200; Mount Aziscoös, 3,150; and other lofty summits. There are 1,568 lakes and ponds, covering 2,300 square miles, with limpid waters and great beauty of scenery. The chief of these are Moosehead, 38 by twelve miles long, and 1,023 feet above the sea; Sebago, 14 by eleven miles, and 400 feet deep; the Rangeley Lakes, 1,511 feet above the sea, and covering 80 square miles; Chesuncook, 20 by two miles in area; and the Schoodics, near the eastern boundary. These lovely inland waters abound in pickerel, trout, landlocked salmon, and other fish, and are visited by thousands of sportsmen.

MOOSEHEAD LAKE: MOUNT KINEO.

MOUNT DESERT: EAGLE LAKE.

Maine is blessed with a network of 5,151 streams, the chief of which are the Penobscot, 275 miles long, and navigable to Bangor (55 miles); the deep and rocky-shored Kennebec, 155 miles long, and navigable to Augusta (42

MOUNT DESERT AND BAR HARBOR.

miles); the Androscoggin, 157 miles; the St. Croix, 97 miles; and the Saco, 95 miles. The St. John drains a great area of the wilderness. It is claimed that Maine has more available water-power than any other portion of the globe of equal extent, the amount being above 2,500,000 horse-power.

The rock-bound coast of "hundred-harbored Maine" extends for 2,486 miles (225 miles in a straight line), and is broken by the great bays of Passamaquoddy, Penobscot, and Casco, each of them abounding in beautiful islands; and by many smaller bays, Sheepscot, Frenchman's, Muscongus, Narraguagus, and others. The coast forms a succession of long rocky peninsulas and islands, separated by deep and narrow fiords, and with many admirable land-locked harbors. It is starred at night by 54 light-houses and lighted beacons, and 23 fog-signals; and 23 bell-buoys and whistling-buoys warn mariners from points of danger.

Summer Resorts abound in this charming northern park, which is far above the range of malaria, mosquitoes, and heat. There are summer-hotels and cottages all along the coast, from ancient Kittery and York and Wells, by Kennebunkport, Old Orchard, and Scarborough, and among the lovely islands of Casco Bay, to Harpswell and Cape Small Point; Hunnewell's Point, at the mouth of the Kennebec; Squirrel Island, off Boothbay; the Penobscot-Bay resorts, Camden, Northport, Castine, and Deer Isle; the metropolitan splendors of Mount Desert and Sorrento; and the remoter eastern beaches and head-lands. Off Penobscot Bay rise the purple mountains of Isle au Haut, inside of which lie the hundreds of islands which gem the great estuary of the Penobscot. Monhegan is twelve miles from the main-land, and covers a thousand rocky acres. Mount Desert, off the eastern coast, is a mimic continent of 100 square miles, with 13 high mountains rising from the sea, and several clear highland lakes. Its wonderful Tyrolese scenery has given reason for the growth here of one of the choicest of American summer-resorts, and the beautiful cottages and the huge hotels of Bar Harbor are of world-wide fame. Several other popular resorts, like Seal Harbor, Southwest Harbor, and Northeast Harbor, have risen on the island; and the shores of the adjacent Frenchman's Bay are studded with similar summer-colonies, Sorrento, Sullivan, Winter Harbor, and La Moine. An eminent Boston divine once lamented that "God is making no more Maine coast;" and this glorious eight hundred leagues of sea-bound, backed by illimitable natural parks of forests, lakes and mountains, is the great pleasure-ground of the North-Atlantic States. In the vast northern forests there are many favorite places for sportsmen, the trout-abounding Rangeley Lakes, great Moosehead Lake, Chesuncook, the Allagash waters, and many other lonely forest-streams and lakes, on whose shores the moose and caribou still linger. On the west are Fryeburg and Bethel, close by the White Mountains. Fully 100,000 summer-visitors enter Maine every season, supporting 250 summer-hotels and numberless farm boarding-houses and forest-camps. Nearly $10,000,000 are spent here every year by and for this class of guests.

MOUNT DESERT: SPLIT ROCK.

LAKE MOOSELOOMAGUNTIC.

One of the most charming and most widely-known summer-resorts in America, patronized by distinguished people from both continents, is Poland Spring, 25 miles north of Portland, and reached by a delightful five-mile stage-ride from Danville Junction, where the Maine-Central and Grand-Trunk Railways cross. Among the venerable pine and oak groves on this hill-top, which looks over leagues of lakes and valleys, and out to the White Mountains, stands the great Poland-Spring House, with its broad frontage, 500 feet long, and all modern devices for giving comfort and luxury to the pilgrims of health. Close by is the Mansion House, smaller, but very attractive, and open all the year. The first Mansion House was opened here in 1797 by Wentworth Ricker, and ever since that time some member of the family has kept a hotel here. The establishments now are run by Hiram Ricker & Sons. The foremost characteristic of this wonderful spring is its unapproachable and incomparable purity, an excellence in which it is unsurpassed among all the waters of the world. It is not a mineral water, but the least mineral of waters; and therein, and in certain unknown but irresistible potencies, its mysterious power consists. It is a powerful absorbent, and cures many perilous disorders, besides reviving dormant or dying organs. In all diseases of the kidneys it acts with magical efficacy. The Poland water is sent in great quantities to all parts of the United States, being everywhere in use as a remedial agent, or as a delicious table-water.

MOUNT DESERT: BAR HARBOR.

POLAND SPRING.

POLAND-SPRING HOUSE.

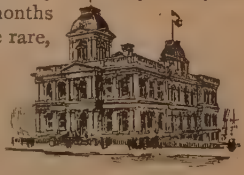
MANSION HOUSE.

The Maine woods cover 20,000 square miles, an area seven times greater than the Black Forest of Germany; and abound in great white pines, sometimes 240 feet high; hard and thick-grained yellow pines; Norway and pitch-pines, spruces and hemlocks, elms and maples, beeches and buttonwoods, oaks and birches, basswoods and ashes, larches and poplars, cedars and firs. Thoreau said that "a squirrel could travel the whole length of the country on the tops of the trees." The lumber industries run out 400,000,000 feet yearly. The enforcement of laws against hunting with dogs has been attended with an amazing increase of deer, caribou, and moose; and bears and catamounts, wolverines and hedgehogs, abound. The hunters of Maine send yearly to the furriers 22,000 skins of muskrats, 10,000 of foxes and mink, and great numbers of sables, otters, and coons.

Climate.—Equidistant between the equator and the North Pole, Maine is a land of variable winds, gentle rains, sudden changes, and heavy sea-fogs, with cooler summers and warmer winters than corresponding latitudes in the interior. The mean annual temperature is 40.88°; mean summer 62.18°; mean winter 18.45°. The mean annual depth of snow is 83.02 inches (equal to 6.91 inches of water). In the north it covers the ground from mid-November to mid-April. The Penobscot is frozen for 125 days each year. The summer is short, with hardly five months between frosts. Malarial diseases are rare, but consumption causes one fourth of the deaths.

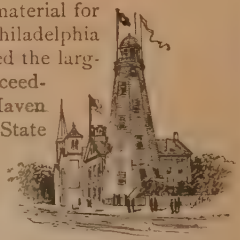
PORTLAND: POST-OFFICE.

The Geology of Maine affords, as its best commercial products, the excellent gray, red, and black granites of the Penobscot Islands, used for



PORTLAND: CUSTOM-HOUSE.

public buildings all over the country. Dix Island produced the material for the Treasury Building, at Washington, and the New-York and Philadelphia post-offices. The Bodwell Company of Vinal Haven has quarried the largest piece of stone ever cut in the world, its length of 115 feet exceeding that of the greatest of the Egyptian obelisks. Vinal Haven yielded much of the stone for the Cincinnati Post-office and the State Department, at Washington. Maine granite has also made the Yorktown and Plymouth monuments, the Buffalo City Hall, the Baltimore Post-office, and the City Building, at Chicago. Deer Isle has valuable quarries, from which the granite is swung by derricks on to the vessels' decks. At Mount Waldo 200 men quarry granite paving-blocks. Maine ships yearly 100,000,000 of these blocks. There are valuable quarries at Yarmouth, North Jay, and Blue Hill. At West Sullivan 1,000 men are engaged quarrying the fine gray granite which spreads along the top of the ground, and is shipped down Frenchman's Bay. Hallowell has large quarries of white granite; and Norridgewock ships granite from its Dodlin Hill. Calais, Mount Desert, and Jonesport produce fine red granite; Addison, St. George, and Columbia are celebrated for their black granite. Rockland, on Penobscot Bay, has eighty kilns, where 1,000 men make 1,200,000 barrels of lime yearly. The slate-quarries in the Piscataquis Valley have been worked for half a century. Freestone, marble, and serpentine are found in various places; and Orr's Island contains fine steatite. Gold, silver, copper, lead, tin, and manganese are found in small quantities. The Katahdin Iron Works produce excellent metal from bog ore. Mount Mica, in Paris, abounds in tourmalines, rose-quartz, and other rare minerals.


PORTLAND: OBSERVATORY.

TOGUS: OLD SOLDIERS' HOME.

Agriculture is increasing, but out of the 19,000,000 acres in Maine, only 3,500,000 are improved, in about 65,000 farms, valued at $110,000,000. About 8,000,000 bushels of potatoes, 2,800,000 of oats, 1,000,000 of corn, 1,300,000 tons of hay, 2,800,000 pounds of wool, and 1,400,000 pounds of butter, are among the yearly farm-products. There are 90,000 horses, 350,000 cattle, 540,000 sheep, and 70,000 hogs. The Aroostook Valley has the largest area of fertile farming land in New England, composed of a deep yellow porous loam, above a stratum of limestone. Vast areas here remain unoccupied, and may be bought for a nominal price. Apples, pears, cherries, plums, grapes, and berries grow abundantly all over Maine; and sweet corn and other vegetables and fruits are preserved in cans at many large factories, and have a world-wide reputation.

The Government includes a governor, elected biennially by the people, and several executive officers chosen by the legislature, which is composed of a senate of thirty-one members and a house of 151 representatives. The Supreme Judicial Court has eight justices, and there are probate and commissioners' courts in each county, and superior, municipal and police courts.

The State House, on the heights over the Kennebec River at Augusta, dates from 1828–31, and is of white granite, with ten monolithic Doric columns, and a graceful and far-viewing dome. It contains the legislative halls; the State Library of 45,000 volumes; the Rotunda, with 112 battle-flags and guidons of the Maine volunteers in 1861–5; and the portraits of Pepperrell, Pownall, Knox, Washington, and Lincoln. The Maine General Hospital is at Portland. The Maine Industrial

PORTLAND HARBOR; FORT GORGES.

BRUNSWICK: BOWDOIN COLLEGE.

School for Girls, at Hallowell, is a refuge for the friendless and imperilled, but not a place of punishment. The State Prison was founded in 1824, at Thomaston, and has 170 convicts. The State Insane Asylum has 600 inmates.

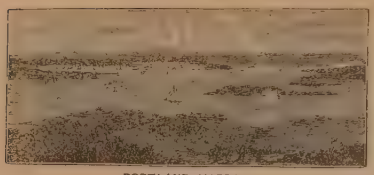
The Maine Volunteer Militia includes a brigade of two infantry regiments (of eight companies each) and a battery, and the Frontier Guards, of Eastport; and is kept in an efficient condition by regular encampments, inspected by United-States officers. The Reserve Militia consists of a small and diminishing number of independent companies, kept up without expense to the State.

The United-States Buildings in Maine include the beautiful white-marble Post-office and the granite Custom House, at Portland; public offices in several other cities; the Kennebec Arsenal, at Augusta, with several thousand stand of arms and many cannon; and the United-States Marine Hospital, near Portland, overlooking the beautiful Casco Bay. The Navy Yard, at Kittery, dates from 1806, and occupies an island in the Piscataqua River, with works which have employed 1,000 men at once, but are now in a ruinous condition. The famous old war-ship *Constitution* is kept here. Widow's Island, in Penobscot Bay, is a sanitarium maintained by the Government for the quarantine and treatment of the sick with yellow fever. The Eastern Branch of the National Home for Disabled Volunteer Soldiers occupies an estate of 1,700 acres, formerly used as a summer resort, at Togus Springs, five miles from Augusta This domain has been ceded by Maine to the United States, and is the home of 2,200 uniformed veterans, from many States. The fortifications of Maine include Fort McClary, at Kittery Point; Forts Preble, Scammel, and Gorges, in Portland Harbor; Fort Popham, at the mouth of the Kennebec; and Fort Knox, on the lower Penobscot. The only garrison is one company of United-States artillery, at Fort Preble.

WATERVILLE: COLBY UNIVERSITY.

Education.—The State Normal Schools are at Castine, Gorham, and Farmington, with the Madawaska Training-School, at Fort Kent. The public schools are thoroughly efficient, and receive their support from State and town taxes. Bowdoin College, at Brunswick, was incorporated in 1794 and opened in 1802, with a State endowment. It also received large gifts from James Bowdoin, sometime Minister to Spain and France, the son of Gov. Bowdoin, the great-grandson of Pierre Baudouin, a Huguenot gentleman of La Rochelle, who came to Portland in 1689. Nathaniel Hawthorne, Henry W. Longfellow, and Franklin Pierce were students here, at the same time. The sombre beauty of the adjacent pine-groves, the riches of the Bowdoin gallery of paintings, the stone Memorial Hall, the frescoed chapel, and the library of 40,000 volumes, are among the treasures of the college. There are 190 students, of whom 170 are from Maine; and in the connected Medical School there are eighty students, seventy of whom are Maine men. Nearly 4,000 students have graduated here. Colby University, at Waterville, on the Kennebec, was opened in 1818, and is a Baptist institution, with several brick and stone buildings, and a library of 25,000 volumes. It has 120 students, young men and women. The State College of Agriculture and the Mechanic Arts, at Orono, on the Penobscot, dates from 1868, and has 120 students, uniformed in blue and gray, and drilled as a battalion by a resident United-States officer. There are five buildings, and a farm of 370

PORTLAND: PUBLIC LIBRARY.



PORTLAND HARBOR.

acres. Bates College, near Lewiston, is a Free-Baptist institution for both sexes, founded in 1863. It has ten instructors and 137 students. The Bangor Theological Seminary, founded in 1814, is a Congregational institution.

The Free Public Library, presented to Portland in 1889 by J. P. Baxter, is a handsome Romanesque building. The Bangor Library has 25,000 volumes; and the Maine Historical Society, 10,000. The libraries at Livermore, Hallowell, Saco, and Belfast have much architectural beauty.

Chief Cities.—Portland, "the Forest City," is beautifully situated on a hilly peninsula of Casco Bay, and has a deep and well-sheltered harbor, and a shipping of over 100,000 tons. For many years it has served as a winter-port for Canada, which sends out from and receives thence $50,000,000 worth of goods yearly. The Indians destroyed Portland in 1676; the French and Indians, in 1690; the British, in 1775; and in 1866 a fire swept away $6,250,000. Bangor, a handsome city, on the Penobscot, is one of the great lumber-marts of the world. Augusta, the capital, is a handsome city on the Kennebec River, with a great water-power and fine public buildings. Biddeford and Saco are twin cotton-manufacturing cities. Lewiston and Auburn are contiguous cities, with many cotton-mills. Around the beautiful Penobscot Bay are Rockland, with its active coasting-fleet; Camden, with its anchor-works; Belfast once famous for its gallant ships; and Castine, a tranquil village and summer-resort, surrounded by the ruins of French, British, and American forts. Down on the New-Brunswick border is Calais, with its ship-yards on the St. Croix; Eastport, perched on a hilly island in Passamaquoddy Bay; and Lubec, the easternmost American village.

BOON-ISLAND LIGHT.

In Maritime Trade, Maine stands among the foremost States. It has 2,500 vessels (120 steamers), of 500,000 tons. In the four years, 1882 5, 500 vessels were built in Maine, with a tonnage of 220,000. Twenty of these were of above 2,000 tons each. Forty ship yards employ 2,000 men. Many Maine ships rarely revisit her shores, after sailing away flying light, but spend their lives carrying cargoes between distant ports. Bath, on its magnificent Long Reach, a deep and land-locked stretch of the Kennebec, is famous wherever blue water flows for its staunch vessels.

In fisheries, Maine is second only to Massachusetts, with 450 vessels. The fish caught are cod, mackerel, hake, haddock, and pollock. The Maine waters also contain shad, smelt, salmon, alewives, flounders, rock cod, and cunners. Fifteen lobster canneries employ 600 persons; and others prepare small herring like sardines. There are 6,500 men, mainly on the Kennebec and Penobscot, who cut and store yearly 1,000,000 tons of ice for exportation.

EASTPORT, AND PASSAMAQUODDY BAY.

The Railroads of Maine began operations in 1836. The lines from Portland to Boston are owned by the Boston & Maine Railroad, the Eastern Division running through Portsmouth, Newburyport, and Salem (108 miles), and the Western Division through Dover, Exeter, and Haverhill (116 miles). The Grand Trunk line runs from Portland to Montreal (297 miles), and beyond. The Canadian Pacific line crosses the savage wilderness, from Lake Megantic to Moosehead Lake and the Penobscot River.

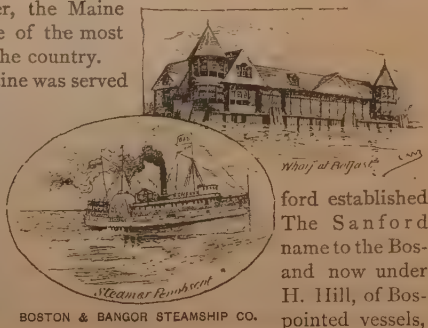
PORTLAND HARBOR LIGHT.

PORTLAND: CITY HALL.

The elaborate networks of Maine railways are nearly all united within the Maine Central Railroad system, operating 607 miles in the State and 166 miles outside, with assets amounting to $20,000,000. Until recently its rails were entirely within the State of Maine, from Portland east to the Canadian boundary, 250 miles, with numerous branches from the parent stem. Its two lines from Portland to Waterville, one following the Kennebec River, the other along the Androscoggin, give virtually a double track for 82 miles. Since Maine, with its thousand leagues of glorious rocky sea coast, and its illimitable area of game-haunted forests and lakes, has become the great summer-park of the Atlantic States, this railway has afforded the best of facilities to pleasure-travellers, with Pullman vestibuled trains, and safe and swift service. It reaches most of the cities of Maine, and sweeps the State from sea to Northern forest. It supplies through-car facilities between "the States" and the Maritime Provinces. A new departure is the lease and construction of lines northwest from Portland, attacking the White Mountains at their most inaccessible point, penetrating the "Heart of the Notch" through scenery incomparable east of the Rocky Mountains. This route gives the best facilities for travel from the St. Lawrence valley and the seaboard of Maine, the natural winter outlet of the fast-growing commerce of Canada. Westward, the Maine Central leads away across the Connecticut River and enters Vermont, where connecting lines transport through-cars from the sea at Portland to Chicago, by way of Lake Champlain, the St. Lawrence and Niagara. It is the initial line, also for a through-car route to Montreal by the Canadian Pacific Railway, and by extension and lease has an air-line to Quebec. The road has been very successful, and its phenomenal growth in mileage, rolling-stock, stations and train equipment, is a matter which warrants much praise to its efficient management. The Union Station, at Portland, ranks with the finest in America, and is a perfect gem in architecture, and a model for comfort and convenience. The Maine Central also operates the Portland, Mount-Desert & Machias Steamboat Line, extending eastward from Portland to Penobscot Bay, Mount-Desert Island, and the farther coast of Maine. Altogether, the Maine Central is regarded by railroad men as one of the most successful and most ably managed roads in the country.

PORTLAND: UNION STATION: MAINE CENTRAL RAILROAD.

Steamships.—The beautiful coast of Maine was served by a regular steamship line as early as 1823, the boats running from Boston to Bath, Boothbay, Camden, Belfast, Sedgwick, and Eastport. The Bangor line began to run in 1833; and soon afterward Captain Sanford established a new line between Boston and Bangor. The Sanford Steamship Company in 1882 changed its name to the Boston & Bangor Steamship Company, then and now under the presidency and management of William H. Hill, of Boston. It has three fine and comfortably appointed vessels,



BOSTON & BANGOR STEAMSHIP CO.

the *Penobscot*, the *Katahdin*, and the *Lewiston*, each of about 1,500 tons, and carrying above 500 passengers. Every week-day one of these leaves Boston and Bangor, passing around the granite cliffs of Cape Ann; crossing the magnificent Penobscot Bay, and traversing the broad Penobscot River. The steamships touch at many a historic point on the Pine-Tree coast — Rockland, whence a connecting boat runs across the bay to Mount Desert; Camden, nestling under high mountains; Northport, with its breezy camp-meeting grounds; Belfast, devastated by British fleets; Searsport, back of Brigadier Island; Fort Point, with the ruins of Fort Pownall, built in 1758; Bucksport, near the great fortress of Fort Knox; Winterport, the head of navigation in winter; and Hampden. The Boston & Bangor line is one of the most successful and best managed routes in the New-England States.

AUBURN: ARA CUSHMAN COMPANY.

Manufactures.—Auburn is celebrated for its shoe-factories, which have drawn hither an army of intelligent workmen. The largest of these belongs to the Ara Cushman Company, the foremost shoe-manufacturers in Maine. It employs 1,000 hands, occupying three extensive four-story buildings, and making an endless variety of boots and shoes for men, youths, and boys. This immense business is the outgrowth of the little one-story "tea can" shop in West Minot, where Ara Cushman in 1853 began to make shoes, doing all parts of the work himself. After a time, he began to drive about through Maine, with horse-loads of his shoes; and soon found it necessary to hire men to help him, and to enlarge his quarters. In 1863 he moved to Auburn; and in 1888 the business was incorporated, with Ara Cushman as president and largest stockholder. The paid-in capital is $400,000, and the business reaches $1,500,000 a year.

The paper-mills of Maine have long been celebrated for the excellence of their product. One of the best known among them is the establishment of the Poland Paper Company, employing 300 men in its works at Mechanic Falls and its chemical fibre mill at Canton; and turning out more than $1,000,000 worth of paper yearly. The paper-making at Mechanic Falls began in 1851, and has developed slowly and surely, until now the group of mills, equipped with the latest and best devices in machinery, and provided with abundant clear water and water-power, can make daily 22 tons of fine book and newspaper. The president of the Poland Paper Company is Arthur Sewall, of Bath, who is also the president of the Maine Central Railroad; and the treasurer is Charles R. Milliken, the proprietor of the celebrated Glen House, in the White Mountains, and president of the Portland Rolling Mill. Aside from the water-power at Mechanic Falls, the company owns the flowage privileges of three large lakes, several miles above their mills, where the water is held back by substantial stone dams, for use during the dry season. The importance of clear water is well understood by paper manufacturers, and the limpid streams of New England have been of great value in this industry.

MECHANIC FALLS: MILLS OF THE POLAND PAPER COMPANY.

HISTORY.

The pleasant shores of Maryland were in ancient times the dwelling-places of the powerful Susquehannough Indians, a seceded and hostile Iroquois clan, and of several Algonquin tribes, connected with Powhatan's confederacy, and getting an easy livelihood in the fisheries. The last fragments of the Chesapeake aborigines now dwell in Canada, near Lake Erie.

After the failure of his Christian colony of Avalon, in Newfoundland, Lord Baltimore visited Virginia. He came originally from Yorkshire, the home also of the Fairfaxes of Virginia and the Wentworths of New Hampshire; and in Parliament had distinguished himself as the friend of the King. Hearing that the northern part of Virginia, beyond the Potomac, was a fertile and valuable country, and quite unoccupied (save by tag-rag Indians), he secured it for himself and his heirs, as a county palatine, with the first proprietary government in America, and the most liberal privileges ever granted to a colony. The domain belonged to Virginia, according to her original charter, but, as the latter was a Royal Province, it became easy for the King to detach this section for his friend. The charter granted by King Charles I. to the moribund Sir George Calvert, the first Lord Baltimore, was issued to his son, Cecilius, who sent his brother, Leonard Calvert, to colonize the country. Fully 200 persons, gentlemen adventurers and their servants, sailed in the *Ark* and the *Dove*, in 1633, and settled at St. Mary's (near Point Lookout), where the first legislative assembly met, in 1635. The colonists were a mixture of Protestants and Catholics, about equally divided. Calvert himself was a Catholic, and sent with them two Jesuit priests; but they bound themselves to not "directly or indirectly trouble, molest or discountenance any person whatsoever in the Province professing to believe in Jesus Christ, for or in respect of his or her religion." Such mutual forbearance was an approach toward religious freedom, then almost

STATISTICS.

Settled at	St. Mary's.
Settled in	1634
Founded by	Englishmen.
One of the Original 13 States.	
Population in 1860,	687,049
In 1870,	780,894
In 1880,	934,943
White,	724,693
Colored,	210,250
American-born,	852,137
Foreign-born,	82,806
Males,	462,187
Females,	472,756
In 1890 (U. S. Census),	1,042,390
White,	824,149
Colored,	218,004
Population to the square mile,	94.8
Voting Population,	131,106
Vote for Harrison (1888),	99,986
Vote for Cleveland (1888),	106,168
Net State Debt,	$2,724,123.56
Real and Personal Property,	$486,000,000
Area (square miles),	12,210
U. S. Representatives (1893),	6
Militia (Disciplined),	2,036
Counties,	23
Post-offices,	1,093
Railroads (miles),	1,231
Vessels,	2,107
Tonnage,	141,131
Manufactures (yearly),	$106,771,393
Operatives,	74,942
Yearly Wages,	$18,904,065
Farm Land (in acres),	5,185,221
Farm-Land Values,	$165,503,341
Farm Products (yearly),	$28,839,281
Public Schools, Average Daily Attendance,	99,220
Newspapers,	200
Latitude,	37°53′ to 39°44′ N
Longitude,	75°2′ to 79°30′ W
Temperature,	—6° to 102°
Mean Temperature (Baltimore),	54°

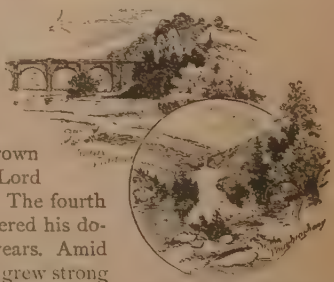
TEN CHIEF PLACES AND THEIR POPULATIONS. (Census of 1890.)

Baltimore,	434,439
Cumberland,	12,729
Hagerstown,	10,118
Frederick,	8,193
Annapolis,	7,604
Cambridge,	4,192
Frostburg,	3,804
Havre de Grace,	3,244
Easton,	2,939
Salisbury,	2,905

unknown in the world; and, although there were stringent laws for banishing or severely punishing "vagabonds called Quakers," persons denying the doctrines of the Trinity, etc., yet many of different denominations sought and found in Maryland a safe refuge from more rigorous enactments elsewhere. Another singular element appeared, when the New-England Puritan missionaries, expelled from Virginia, settled at Providence, which afterwards received the name of Anne Arundel's Town (and later of Annapolis), in honor of Lord Baltimore's wife, the daughter of the Earl of Arundel. This colony increased rapidly, and became involved in the political complications in England, adhering to the Protectorate, while the Governor, by the direction of Lord Baltimore, adhered to the party of the King. They refused to take the oath of allegiance dictated by the Governor, who thereupon with 200 men attacked Providence, to the battle-cry of "Hey for St. Mary's." The Roundheads, roaring "In the name of God, fall on," brought the Royalists to confusion, slaying or wounding 50 men, and making the rest captives. Thus on March 25, 1655, occurred the first land-battle between English-speaking men in America, the precursor of Saratoga and Lundy's Lane, of Shiloh and Gettysburg.

CUMBERLAND.

Lord Baltimore had much difficulty with Wm. Claiborne, of Virginia, whose trading-stations on the Isle of Kent and Palmer's Island were three years older than Maryland; and it was only after nearly half a century of proscriptions, battles and bloodshed that he finally prevailed over this valiant pioneer. During the Civil War in England Richard Ingle captured Maryland for the Commonwealth, and sent its Jesuit priests in irons to England; but Gov. Calvert re-won the colony in 1646. In 1652 and 1688 the lord proprietor's government was overthrown by Parliament, incited by the Puritans of Maryland, but Lord Baltimore resumed the dominion at the Restoration. The fourth Lord Baltimore became a Protestant, and in 1714 recovered his domain, after Maryland had been a Crown colony for 26 years. Amid its many changes of government, this vigorous province grew strong and independent, and in 1774 finally overthrew its feudal proprietors.



ON THE B. & O. RAILROAD.

The city of Baltimore was laid out in 1730, and Frederick (named for Lord Baltimore's son) in 1745. The long boundary dispute between the Baltimores and the Penns was settled when the English surveyors, Mason and Dixon, in 1763–7, run a line 258 miles westward from the Delaware, marked with stone mile-posts, and at every five miles bearing the sculptured arms of Maryland and Pennsylvania. Human slavery never flourished north of this line.

At the outbreak of the Revolution the State came into action with the foremost, and the valor of the Maryland Line illuminated many a battle-field. The chief invasion occurred in 1777, when Sir Wm. Howe and his British and Hessian army of 13,000 men sailed up the bay and landed on the Elk River, whence they marched to their victorious campaign in Pennsylvania. Maryland refused to join the United States until the Western territories were surrendered to the Government by the claimant States, and when this was done she entered the Union, in 1790. The State suffered greatly during the War of 1812, when Admiral Cockburn sailed up and down Chesapeake Bay, with a powerful British fleet, and plundered and burned Frenchtown, Charlestown, Fred-

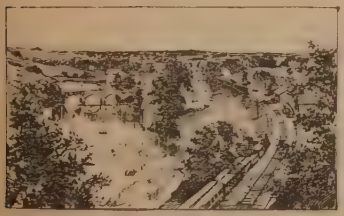
ANTIETAM: BURNSIDE'S BRIDGE.

ericktown, Havre de Grace, North East and Georgetown. Her militia suffered a pitiable defeat at Bladensburg. Ross, the British commander, advanced against Baltimore, saying that he did not care if "it rained militia;" but the local volunteers, with a Virginia brigade and some Pennsylvanian companies, gave him a strong battle at North Point. He won the field, but lost his life and many of his men. Fort McHenry, covering the approach to the city from the sea, successfully endured and returned a bombardment of 19 hours, from Cockburn's squadron, and during this storm of fire and iron, Francis Scott Key, a Marylander imprisoned on the fleet, wrote the noble national song, "The Star-Spangled Banner." Baltimore escaped capture.

HAVRE-DE-GRACE BRIDGE, OVER THE SUSQUEHANNA RIVER.

The first American telegraph was built from Baltimore to Washington, in 1844, with a Government appropriation of $40,000; and the first message over the wires was: "What hath God wrought?"

Although a slave State, Maryland refused to join in the Secession movement. The Legislature convened at Frederick, and favored neutrality. The local Confederates took an active part, and made a bold attack on the 6th Massachusetts Infantry, hurrying through Baltimore to the rescue of the National capital. This was the first bloodshed of the civil war. They also burned the bridges north and east of Baltimore, to prevent the advance of National troops to Washington.



WILLIAMSPORT, ON THE POTOMAC.

After Lee had defeated McClellan and Pope in 1862, he threw his army into Maryland, occupied Frederick, and summoned the people to rise against the Union. But the Marylanders refused; and McClellan, hurrying after him, stormed the passes of South Mountain, and hurled the 70,000 men of the Army of the Potomac in detachments against his 40,000 troops, in position behind Antietam Creek. The military prison at Point Lookout was opened in July, 1863, and interned more than 50,000 Confederate captives — 21,000 at one time. After defeating the Army of the Potomac twice on the Rappahannock, in 1863, Gen. Lee again overran western Maryland, during the Gettysburg campaign. Once more the Confederates entered the State, when Early led 12,000 veterans from the Valley of Virginia to seize Washington; and Lew. Wallace, held him in check at the Monocacy long enough to save the National capital, losing 1,400 men on the field. McCausland's Southern cavalry meanwhile swept through western Maryland into Pennsylvania. Finally, Phil. Sheridan took command of 22,000 foot and 8,000 horse, and forced the Confederates back into Virginia. From this State 46,638 soldiers served in the United-States armies, and 12,000 in the Confederate forces. A portion of these troops in the Southern army bore the title of "The Maryland Line," and by their valor proved themselves no unworthy descendants of their Revolutionary sires. Their kinsmen on the Union side were not less distinguished for bravery, and some of the most obstinate fighting of the civil war occurred between opposing commands from this State. Among these battle-episodes one of the most notable was the bitter fight at Front Royal, Va., between the First Maryland Union Regiment and the First Maryland Confederate Regiment.

WASHINGTON AQUEDUCT; CABIN-JOHN BRIDGE.

The Eastern Shore received settlement later than the Western Shore, although the Indians migrated at an early date. In colonial days, "De Esen Sho'" was occupied by great manors, with massive wide-halled mansions of English brick, whose masters were famous for their hospitality and their pedigrees, and shipped their tobacco and their eldest sons direct to England from the wharves on their own estates. The eight Eastern counties all had old English names, and their gentry were punctilious communicants of the Anglican Church, good riders and enthusiastic hunters, and kindly disposed toward the plain people and negroes. When the Revolution broke out, Royalist camps sprang up all through Worcester and Somerset Counties; and it took 1,000 patriot troops to scatter them. Four times the King's men rose in arms, but their Republican neighbors beat them down as often, besides sending to the Continental army the entire Second and part of the First Regiment of the Maryland Line, and hundreds of gallant riders in Pulaski's Legion and Baylor's horse.

FIRST PASSENGER COACH ON THE BALTIMORE & OHIO RAILROAD.

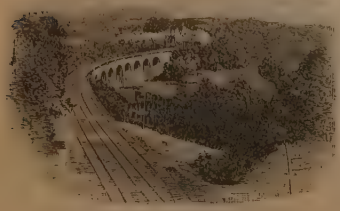
BALTIMORE: UNION RAILROAD STATION.

For 70 years after the Revolution the Eastern Shore ran down, losing in population, health and fertility. During the Civil War, many of its people were fiery Secessionists, and thousands of them enlisted in the Confederate army. The reforms in education, farming processes, live-stock and other things began in 1850, and though interrupted by the war, have since gone forward hopefully.

The Name of the Province, given by King Charles I., was *Terra Mariæ*, or Maryland, in honor of his wife, Queen Henrietta Maria. The name originally intended was *Crescentia*, referring probably to the crescent shape of the new domain. MARYLAND, MY MARYLAND, a favorite pet name for the State, is the refrain of a song written by J. R. Randall, in 1860, urging her to join the Southern Confederacy. The melody was the famous old *Lauriger Horatius*. Other pet names, now nearly forgotten, are THE OLD-LINE STATE and THE COCKADE STATE. The old Maryland Line ranked among the finest bodies of troops in the Continental Army, being largely made up of patrician young men, and held in admirable discipline. They were the dandies of the army, and among their other equipments wore brilliant cockades. The very flower of these troops, Smallwood's battalion, was led by Lord Stirling against a vastly superior force of Cornwallis's grenadiers, charging through the broken American lines at the battle of Long Island. The Marylanders checked the triumphant onset of the British veterans and saved the army, but in a brief 20 minutes 260 of their number perished.

PRINCE GEORGE'S: MARYLAND AGRICULTURAL COLLEGE.

The Arms of Maryland are the arms of Lord Baltimore, six pieces, impaled, quartered with crosses buttoned at each end. Above is a count palatine's cap; and the crest is a helmet, a ducal crown, and two half bannerets. The supporters are a fisherman and a farmer. The motto of Maryland is that of the Calvert family: FATTI MASCHII, PAROLE FEMINE, an Italian proverb, cited in the great Dictionary of the Accademia della Crusca, thus: "Deeds are males, and words females," and implying that where *deeds* are needed, *words* will not suffice.


RELAY HOUSE AND WASHINGTON VIADUCT.

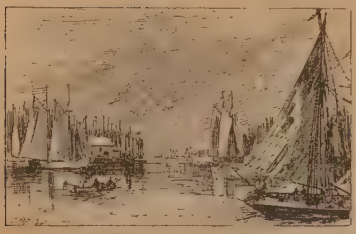
EMMITTSBURG: MOUNT ST.-MARY'S COLLEGE.

The Governors of Maryland numbered sixteen under the Proprietary system and several under the Colonial, besides Parliament's commissioners and the Council of Safety. *State:* Thos. Johnston, 1777–9; Thos. Sim Lee, 1779–82; Wm. Paca, 1782–5; Wm. Smallwood, 1785–8; John Eager Howard, 1788–91; Geo. Plater, 1791–2; Thos. Sim Lee, 1792–4; John Haskins Stone, 1794–7; John Henry, 1797–8; Benj. Ogle, 1798–1801; John Francis Mercer, 1801–3; Robert Bowie, 1803–6 and 1811–2; Robert Wright, 1806–9; Edw. Lloyd, 1809–11; Levin Winder, 1812–5; Chas. Ridgely, 1815–8; Charles Goldsborough, 1818–9; Samuel Sprigg, 1819–22; Samuel Stevens, Jr., 1822–5; Jos. Kent, 1825–8; Daniel Martin, 1828–29 and 1831; Thos. King Carroll, 1829–30; Geo. Howard, 1831–4; Jas. Thomas, 1834–7; Thos. W. Veazey, 1837–9; William Grason, 1839–42; Francis Thomas, 1842–5; Thos. G. Pratt, 1845–8; Phil. F. Thomas, 1848–51; Enoch Lewis Lowe, 1851–4; Thos. Watkins Ligon, 1854–8; Thos. Holliday Hicks, 1858–62; Aug. W. Bradford, 1862–5; Thos. Swann, 1865–8; Oden Bowie, 1868–72; Wm. Pinkney Whyte, 1872–4; Jas. B. Groome, 1875–6; John Lee Carroll, 1876–80; Wm. T. Hamilton, 1880–4; Robert M. McLane, 1884–6; Henry Lloyd, 1881–8; Elihu E. Jackson, 1888–92; and Frank Brown, 1892–6.

Descriptive.—Maryland is one of the most eccentric in shape of the States, cut into sections by Chesapeake Bay and its many inlets, and bounded for a long distance on the south by the much-winding Potomac, which leaves it 120 miles wide on the bay, and 120 miles west of there reduces it to a width of four miles. The State is divided into the Eastern Shore, a level country, east of Chesapeake Bay, abounding in vast peach-orchards, and with quick railway communication with Philadelphia and New York; Southern Maryland, the seat of the earliest settlements, with its level and naturally fertile lands, now exhausted, and sold at low prices; Central Maryland, including the thickly settled market-gardening and manufacturing counties of Baltimore, Harford and Howard; and Western Maryland, rich in mines and beautiful with mountains. Southern Maryland embraces the tide-water counties of St. Mary's, Prince-George's, Charles, Calvert and Anne-Arundel, an angular peninsula between Chesapeake Bay and the Potomac River. In general physical features it resembles the Eastern Shore. The climate is mild and delightful, and the scenery along the creeks is pleasant, with a very varied and luxuriant vegetable growth.

Chesapeake Bay, the chief physical feature of Maryland, is the largest American inlet of the sea, being fully 200 miles long, and navigable for the heaviest ships. At its mouth, between Cape Charles and Cape Henry, the width is twelve miles, and higher up, near the Potomac, it reaches 20 miles. It contains many islands, and covers 2,835 square miles, with more than 400 miles of coast line. The Susquehanna River, emptying near the head of the bay, is navigable for only four or five miles. The estuaries which open away from the Chesapeake into tide-water Maryland and Virginia are of remarkable diversity. The Light-House Board has 24 lights on the bay, within the Maryland lines, with eleven in the Patapsco River, and seven in the Potomac. Chesapeake is from the Algonquin *Gitchi*, or *Kichi*, "Great," and *Sipi*, or *Sipik*, "Water." The bay abounds in edible fish; and its shores, haunted by canvas-back ducks and other game-birds, afford a favorite hunting-ground for enthusiastic sportsmen, especially during the autumn. Terrapin are found in perfection in these waters; and the black and striped bass of Port Deposit and Tred-

ANNAPOLIS: ST.-JOHN'S COLLEGE.

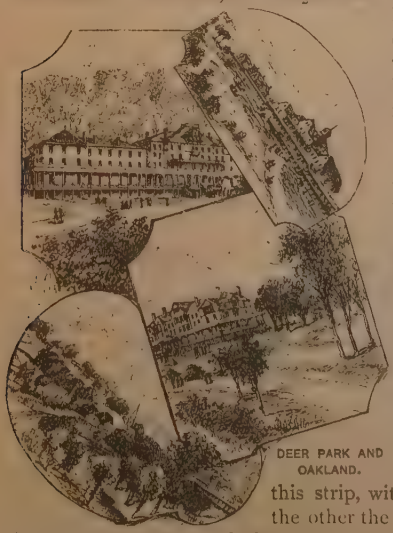


CRISFIELD: OYSTER FLEET.

avon, the moccason of Spesutia Island, the white perch of Betterton, the sheepshead of Oxford, the herring of the lower Potomac, the bay mackerel of the Choptank, and the weak-fish of Crisfield, are of famed excellence. The oyster-beds have a great value, and cover immense areas in the estuaries and inlets, certain exempted grounds of which are protected against the depredations of Virginian dredgers by a fleet of small armed vessels, maintained by Maryland, but often eluded or resisted, and sometimes driven away. Baltimore is the chief oyster-packing city of the world. The Chesapeake oysters are the finest known, and the yearly product is 15,000,000 bushels, more than half of which is shipped from Cambridge, Crisfield and other places on the Eastern Shore. The shad and herring fisheries of Cecil and Harford have a great value, and employ many men. The Alleghany streams have been successfully stocked with the celebrated California rainbow trout. At Baltimore is the A. Booth Packing Co.'s main establishment, where oysters, fruits and vegetables are packed in cans in enormous quantities.

BALTIMORE: A. BOOTH PACKING CO.

The Potomac River rises in the Alleghanies, and flows through a maze of mountains to Harper's Ferry. At the Great Falls it descends 80 feet in 1½ miles, 40 feet being in a single plunge, amid rocky islands, and then it traverses the Little Falls, a line of rapids falling 37 feet. In this vicinity the noble aqueduct supplying Washington with water from Great Falls crosses Cabin-John Bridge, a beautiful granite span of 220 feet, and the longest stone arch in the world. Fifteen miles below the falls is the city of Washington, 380 miles from the source of the river, and 106½ miles from Chesapeake Bay. This lower reach of the Potomac is navigable for large vessels, and finally enters the bay by a low-shored estuary 7½ miles wide. The Patuxent River, famous for its oyster-beds, is navigable for 46 miles; the Patapsco, for 14 miles; and the Choptank and Nanticoke for several leagues each.



DEER PARK AND OAKLAND.

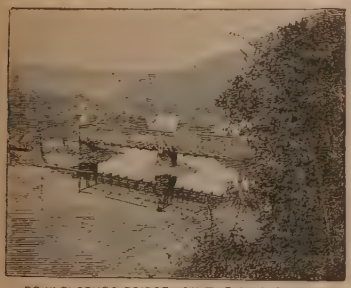
The Eastern Shore is that part of Maryland east of Chesapeake Bay, largely a fertile alluvial plain of light sandy loam and clay, free from stones, dotted with forests of oak and chestnut, and traversed by the estuaries of the Choptank, Pocomoke, Nanticoke, Chester and Elk Rivers. Nearly 4,000 out of the 5,980 square miles of the peninsula between Chesapeake Bay and Delaware Bay belongs to Maryland, forming nine counties. Along the harborless ocean-side of the Eastern Shore, 33 miles long, extends the shallow lagoon of Assateague (Synepuxent) Bay, with a narrow sand-strip outside. Ocean City, the leading sea-shore resort, stretches its hotels and cottages along this strip, with the gently sloping beach on one side, and on the other the still waters of the bay. On the Chesapeake side the summer-resorts are Oxford and Fair Haven, Tolchester and Bay Ridge.

Wheat, corn, oats, rye and barley grow here, and melons, peaches, strawberries and

other fruits. Stock-raising and dairy-farming are also becoming important industries. The marl-beds afford abundant supplies of fertilizing material.

CATOCTIN: THE POTOMAC RIVER.

The western shore of tide-water Maryland lies between the Potomac, just above Washington, and the Susquehanna, including the west inlets of the Chesapeake. For the most part this region consists of rolling plains, rising in the south to the cliffs of the Patuxent. It covers 3,968 square miles, including Howard, Montgomery, Baltimore, Harford, Carroll and Frederick Counties. West of the tide-water region Maryland rises gradually to the great Blue Ridge and the Alleghany Mountains, a series of long ridges parallel with the coast, and enclosing beautiful valleys 20 miles or more in width. The mountains begin beyond Frederick with the long Catoctin Range and South Mountain, and extend to the west frontier, the main Alleghany range lying just west of Cumberland. South Mountain ends with the towering escarpment of Maryland Heights, 1,456 feet high, overlooking Harper's Ferry and the confluence of the Potomac and Shenandoah Rivers, and the seat of formidable batteries during the Secession War. Between South and Catoctin Mountains opens the lovely Middletown Valley, at whose head stand the summer-resorts of Penmar and the Blue-Mountain House, 2,000 feet above the sea, and commanding a view far up the Cumberland Valley into Pennsylvania. High Rock overlooks parts of four States, scores of historic towns, and the grand outlines of the Blue Ridge and the Potomac Valley. The Glades is a plateau of 400 square miles on top of the Alleghany Mountains, 2,500 feet above the sea, beginning at Altamont. In this lofty region are the summer resorts of Deer Park, Mountain-Lake Park and Oakland, along the Baltimore & Ohio Railroad. Braddock's Road was built in 1755, from Alexandria (Va.) to Cumberland and Frostburg, and north into Pennsylvania, to pass the British army to their fatal battle near Pittsburgh. Much of it may still be traced, and the forts erected along the route are partly preserved. The National Road, from Baltimore to Ohio, was constructed early in this century, for a highway between the Ohio and tide-water.


ROWLEYSBURG BRIDGE, ON THE B. & O. R. R.

The Climate of the State is temperate and salubrious, except on the waterside lowlands, where miasma sometimes prevails. The penetration of the land by Chesapeake Bay and its many estuaries gives a certain marine softness to the air and temperature.

The Farm-Products of Maryland include yearly 16,000,000 bushels of corn, 6,000,000 of wheat, 2,000,000 of oats, 2,500,000 of potatoes, 300,000 tons of hay, and 28,000,000 pounds of tobacco, the whole valued at nearly $40,000,000. Peaches, strawberries, and other delicate fruits grow amain in the fertile lowlands. It ranks as the seventh state in the growth of tobacco, and at one time the crop of Prince-George County was the largest in the Union.

ANTIETAM: NATIONAL CEMETERY.

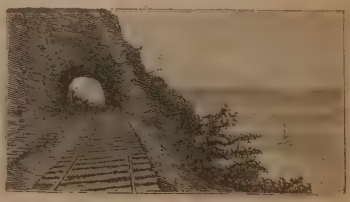
Farming utilizes more than half the soil of Maryland. Harford County alone has 400 houses engaged in canning fruits and vegetables, their product reaching 1,000,000 cases a year. There are 850,000 head of live-stock; and the mutton and dairy-products of the hill-counties are of famed excellence. The peaches, melons and strawberries of the Eastern Shore are sent in vast quantities to the city-markets.

Minerals.—The coal-mines consist of horizontal strata, like the Big Seam of George's Creek, 14 feet thick, between Dan's Mountain and Savage Mountain. This coal-basin is 30 miles long and five miles wide, and contains many villages of Welsh and Scottish miners. Much of the valuable Cumberland semi-bituminous coal comes from near Frostburg, 2,300 feet high on Savage Mountain. The Cumberland coal is jet-black, glossy and friable, and makes a good steam fuel. Mining began in 1842, and 17 companies ship 2,500,000 tons yearly.

BALTIMORE: CATHOLIC CATHEDRAL.

Mineral products include chrome iron of the Bare Hills, specular iron of Sykesville, and zinc, iron and copper of the Frederick region. There are 22 blast-furnaces, making from 20,000 to 60,000 tons of iron yearly. The Maryland quarries produce brecciated marble, slate, sandstone, limestone, porphyry, tripoli, marl and kaolin. The Maryland serpentine (or green marble) and the black serpentine of Harford County are used in ornamental work. Grindstones, millstones and hones are made from the local buhr-stone; epsom salts, from magnesite found here; lime, from the quarries in Baltimore County; mica comes from Howard County, and granite, from Port-Deposit; and Northeast has active fire-brick, kaolin and pottery works. Much of the marble used in building the National Capitol came from Baltimore County. The State has many mineral waters, the chief being Carroll White-Sulphur Springs.

The Government consists of a quadrennially elected governor; several executive officers; the biennial General Assembly, composed of 26 senators and 91 delegates; and the Court of Appeals, and minor courts. The State Constitution dates from 1867. The State House at Annapolis dates from 1773, and overlooks Chesapeake Bay and the Severn River. It is a large brick structure of graceful proportions, crowned by a dome, and surrounded by pleasant enwalled grounds. It contains several historical paintings, and portraits of the governors and the four Maryland signers of the Declaration of Independence. In the Senate Chamber, Gen. Washington resigned his commission as commander of the army. The State Library numbers 80,000 volumes. The Treasury is a venerable building near the State House, once the home of the old Provincial Assembly. The Record Office holds the archives of Maryland. Government House is the official home of the governors. The militia is composed of one regiment and five companies of infantry, and five companies of cavalry. The State Penitentiary at Baltimore has above 600 convicts, a majority of them colored. The Institution for the Education of the Deaf and Dumb was opened in 1868 at Frederick. Colored deaf-mutes and blind persons have their asylum at Baltimore. The Maryland Institution for the Instruction of the Blind, near Baltimore, has 250 inmates. The Maryland Hospital for the Insane, at Catonsville, known as the Spring-Grove Asylum, six miles from Baltimore, is an immense structure of Ellicott-City granite, facing the Patapsco River and Chesapeake Bay, and also the Blue Ridge. Near Baltimore are the huge Bay-View Asylum, the House of Refuge for vagrant and vicious children of both sexes, the Mount-Hope Asylum (Catholic), and many kindred institutions. The McDonogh Foundations, from a bequest of nearly $1,000,000, have been utilized in a large farm-school for boys of the virtuous poor, twelve miles from Baltimore.



POINT OF ROCKS, AND POTOMAC RIVER.

BALTIMORE: BLIND ASYLUM.

The Maryland Confederate Home occupies the

fine old Arsenal buildings and park at Pikesville, six miles from Baltimore, and has 33 inmates, mainly old soldiers of Lee's Army of Northern Virginia.

Education, served by sufficient State, county and local taxes, is supervised by a State Board of Education. Colored children have separate schools. The State Normal School and the Howard Normal School (for colored students) were established at Baltimore in 1865. The Maryland Agricultural College has a farm of 286 acres, in Prince-George County, eight miles from Washington; and its buildings on College Hill command a noble view. Chartered in 1856 and opened in 1859, it is the second existing college of agriculture founded in America. The farm and buildings were paid for by liberal citizens; and the college thus founded afterwards received State and Government aid, on condition that the students form a battalion of cadets, clad in gray West-Point suits. One of its departments, the Maryland Agricultural Experiment Station, publishes and distributes free valuable bulletins and reports.

BALTIMORE: ENOCH-PRATT FREE LIBRARY.

Johns-Hopkins University, endowed by its founder with $3,000,000, and incorporated in 1867, was opened at Baltimore in 1876, to afford collegiate education, and also (and mainly) the higher university education for college-graduates. It is perhaps the culmination of American educational systems; and has also exerted a profound influence upon the young men of Maryland, who are turning toward their renowned university, as a noble substitute for the field-sports and the careless life of earlier days. More than half of the students have graduated at other colleges, largely those of the South and West. The university has 55 instructors and 400 students, including 60 from the South (besides Maryland's 185), 40 from the Middle States, 25 from New England, and 25 foreigners. There are 15 free scholarships eligible for students from each of the States of Maryland, Virginia and North Carolina. Among the students are 9 doctors of philosophy, 22 doctors of medicine, 17 clergymen, and 218 holders of other degrees. The courses of study are History and Political Science, with 162 students; Chemistry, 124; German, 119; English and Anglo-Saxon, 94; Mathematics and Astronomy, 82; Biology, 81; Drawing, 78; Physics, 74; Romance Languages and Latin, 69; Greek, 58; Elocution, 53; Logic, Ethics and Psycology, 48; Semitic Languages, 43; Sanscrit, 39; Mineralogy, 38; and Pathology, 24. The *American Journal of Mathematics*, *American Chemical Journal*, *American Journal of Philology*, and other learned publications are issued under the auspices of the University. The library contains 35,000 volumes; and the collections in mineralogy, physics and mathematics have great value. Warner & Swasey, of Cleveland (Ohio), designed and built the 9½-inch equatorial telescope and the 21-foot steel dome. The Johns-Hopkins Hospital occupies a commanding site with a magnificent E-shaped group of 17 buildings, of brick and Chèat River blue-stone, occupying an estate of 14½ acres on Broadway. It was endowed by Johns Hopkins with $3,400,000, and opened its doors in 1889. The capacity is 400 patients; and the details of the buildings and corridors, heating and ventilation are the results of years of study of European hospitals, and the councils of distinguished American doctors. It is the largest hospital in America, and perfect as any in the world. Here, also, is a nurses' training-school, with a course of several years, including medical instruction, preparing women for hospital, family or district nursing.

BALTIMORE: METHODIST CHURCH.

BALTIMORE: ST.-PAUL'S CHURCH.

St.-John's College traces its inception to the year 1671, when the General Assembly of Maryland ordered the foundation of a school or college for the education of youth in learning and virtue. The result was King William's School, opened in 1701, and subsequently merged into St.-John's College, which began its teachings in 1789. Among its graduates were Wm. Pinkney, Reverdy Johnson, and Francis Scott Key (author of "The Star-Spangled Banner"). The college was closed (and used as a military hospital) during the Secession War. It is largely patronized by Episcopal families. The emerald green campus of 20 acres, between College Avenue and College Creek, and near the Severn River and the United-States Naval Academy, has the venerable colonial McDowell Hall in the centre, flanked by the ivy-clad Pinkney Hall, Humphrey Hall, and other buildings. There are twelve instructors and 92 students, the latter forming a gray-uniformed battalion of cadets, instructed in infantry and artillery drill and tactics.

Washington College, at Chestertown, was formed from the old Kent Free School, in 1783; and Gen. Washington (then encamped at Newburgh) consented to its being named for him, and became one of its benefactors and officers. The West-Nottingham Academy, at Colora, dates from 1741. Western Maryland College is at Westminster. Mount St.-Mary's College, founded at Emmittsburg in 1808, has a group of stone buildings at the foot of the Blue Ridge, two miles from the celebrated Academy of St. Joseph's (for young ladies) and the mother-house of the Sisters of Charity, founded by Madame Seton. Its graduates include Cardinal McCloskey, Archbishops Hughes and Purcell and many other eminent prelates, statesmen and scholars. The College has 137 students and the ecclesiastical seminary has 31. Other Catholic schools are St.-Charles College, near Ellicott City, preparatory to St.-Sulpice Seminary and St.-Mary's University, at Baltimore; Rock-Hill College, at Ellicott City; and Woodstock College, for the education of young Jesuits, with a three-years' philosophical and a four-years' theological course. The library contains 65,000 volumes. Here the young Jesuits of all America receive the traditional principles and discipline of the Order of Jesus, with a thorough higher education. The Scholasticate of the Congregation of the Most Holy Redeemer is at Ilchester.

BALTIMORE: JOHNS-HOPKINS UNIVERSITY.

Mary Garrett has recently erected at Baltimore, for the Bryn-Mawr Preparatory School for girls, a costly fire-proof building, in whose construction large quantities of imported colored and glazed brick were used. The Baltimore City College, the crown of the local public-school system, occupies a picturesque building in collegiate Gothic architecture. The Centenary Biblical Institute of the Methodist Church is at Baltimore. The School of Law of the University of Maryland has 90 students; and its School of Medicine (founded in 1868) has 235. Baltimore has four other medical and dental colleges.

BALTIMORE: JOHNS-HOPKINS HOSPITAL.

The Peabody Institute, at Baltimore, endowed in 1857 by George Peabody with $1,300,000, occupies a white marble building in Grecian architecture, beautifully situated. The library contains 100,000 volumes, mainly those not accessible elsewhere; and is free to all readers. In the gallery of art the best specimens of sculpture are duplicated, with many valuable pictures. Its conservatory of music instructs 250 students. Its symphonies, piano recitals and choral concerts, are at nominal prices. It furnishes about 100 free lectures by eminent specialists each year. George Peabody also founded the Peabody Education Fund, now exceeding $2,000,000, and ably managed by a distinguished board of trustees, including Robert C. Winthrop, Rutherford B. Hayes, Grover Cleveland, Wm. M. Evarts, Hamilton Fish, Samuel A. Green, and other distinguished men. The income of about $100,000 a year is devoted to education in the South, and over $2,000,000 has thus been expended.

BALTIMORE: THE CITY HALL.

The Enoch-Pratt Free Library at Baltimore was founded in 1882, with $1,250,000, by Enoch Pratt, a native of Massachusetts, and for 50 years a Baltimore merchant. Its handsome and fire-proof marble building, opened in 1886, contains a grand reading-room and 85,000 volumes; and there are five branch libraries in various sections of the city. The revenues of the library's fund of $833,333 in cash, invested at six per cent., guaranteed by the city, reach $50,000 a year. Nearly 500,000 books are issued yearly to 42,000 Baltimore families. The Maryland Institute for the Promotion of Mechanic Arts has a commodious building in Baltimore, with schools of art and design and commerce, lecture-courses, night-schools, and 400 students. The library contains 26,000 volumes. The Maryland Episcopal Library has 18,000 volumes; the Archiepiscopal, 16,000; the New Mercantile, 40,000; the Bar Association, 12,000; and there are several other large collections in Baltimore. The private art collections of William T. Walters include 200 exceptionally fine paintings, and magnificent bronzes, statuary and ceramics.

BALTIMORE: PEABODY INSTITUTE.

The title of "Monumental City" is justly applied to Baltimore. The Washington Monument, erected 1816–30, is a column of Maryland marble, 180 feet high, crowned by a statue of the first President. Battle Monument, commemorating the Baltimoreans who were killed in defending the city against the British, in 1814, is a small Egyptian temple of marble, supporting a colossal fasces, on which stands a statue representing the city of Baltimore, with a mural crown, and bearing a laurel wreath. Here, too, is the Odd-Fellows' (or Wildey) Monument; the McDonogh statue; and the memorial to James L. Ridgely, grand secretary of the I. O. O. F. from 1840 to 1881. In 1890 the municipality received a bronze statue of George Peabody, by W. W. Story. Mount-Vernon Place has a statue of Chief-Justice Taney, the gift of William T. Walters, and a noble group of bronzes, including Barye's "War," "Peace," "Order," and "Force," and P. Dubois's "Military Courage." At Annapolis the State has erected Rinehart's colossal sitting bronze statue of Roger B. Taney, Chief-Justice of the United States from 1836 to 1846; also, Congress, in 1886, placed here a noble statue of the Baron de Kalb, who was mortally wounded while commanding the Maryland Line, at the battle of Camden (S. C.), in 1780. The granite monument to Gen. Reno, on the South-Mountain battle-field, and the

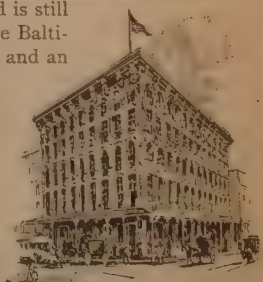
BALTIMORE: BRYN-MAWR SCHOOL.

BALTIMORE: STREET BRIDGE OVER B. & O. R. R.

colossal statue in the National Cemetary at Antietam, are among the memorials of the Secession War.

The Catholics have 130 churches in Maryland, and Cardinal Gibbons, the Archbishop of Baltimore, is the Primate of the Church for America. His house is contiguous to the famous old Baltimore Cathedral, a sombre and massive granite pile, with a classic portico, the Cathedral and the Archiepiscopal residence occupying a half square. The Methodists of Maryland have upwards of 1,000 churches, with a membership of 100,000. The Protestant-Episcopal diocese of Maryland includes 170 churches, with 22,000 communicants. The Lutherans have 120 churches; the Baptists, 80; the Presbyterians, 60.

Newspapers.—The first newspaper, *The Maryland Gazette*, was published at Annapolis from 1745 until 1839. The *Maryland Journal and Baltimore Advertiser*, founded in 1773, changed its name in 1820 to the *Baltimore American*, and is still published. The head and front of Maryland journalism is the Baltimore *Sun*, published by A. S. Abell & Co., daily and weekly, and an independent national conservative, enterprising and reliable newspaper, with bureaus in the leading news-centres of the Union, and an admirable system of departments. The first rotary printing machine was used by *The Sun*, which also received and printed the first document transmitted by telegraph. The attractive iron-front building occupied by this paper was the first iron structure erected, and is the home of a large body of trained writers. In 1836 Arunah S. Abell and two other practical printers founded the *Public Ledger*, at Philadelphia; and a year later Mr. Abell founded *The Sun*, and identified himself with Baltimore and this paper, which he managed with signal ability and success. When he died, in 1888, full of years and honors, *The Sun* passed under the control of his sons and co-partners, who had personally labored with him in the creation and development of the great newspaper which it has grown to be. In their hands *The Sun* promises to be even more influential in the future than in the past, as a factor as well as exponent of enlightened public opinion. As a leading newspaper in a Democratic State, with a large circulation beyond its borders, and published within a distance which is covered in less than an hour from the National Capital, where its office is one of the most striking and beautiful business buildings that adorn that city, *The Sun* enjoys exceptional advantages for exercising a wholesome influence upon National politics.



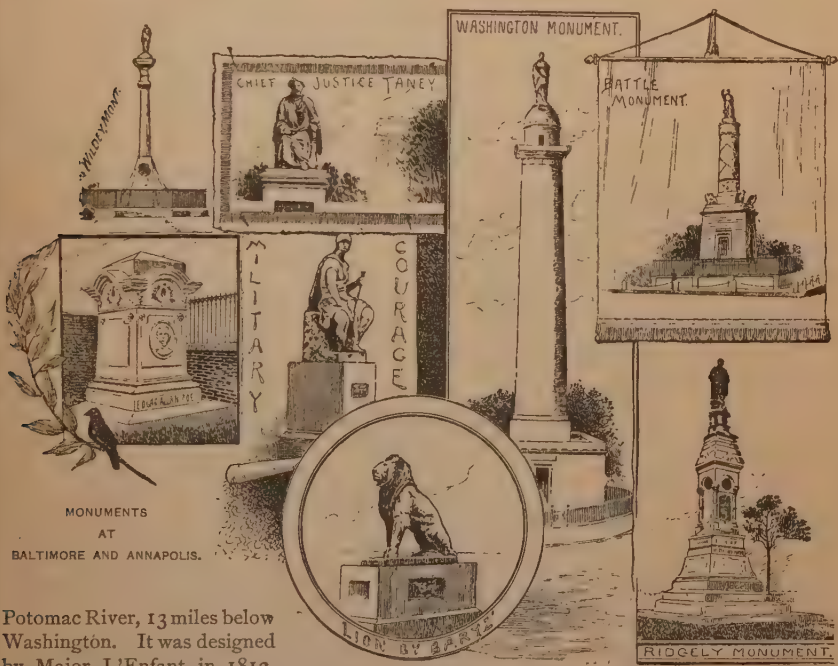
BALTIMORE: "THE BALTIMORE SUN"

BALTIMORE: DRUID-HILL PARK.

National Institutions.—The United-States Naval Academy for cadet-midshipmen and engineers occupies a group of commodious buildings in a park of 50 acres, fronting on the Severn River, at Annapolis. It was founded in 1845, by George Bancroft, then Secretary of the Navy, and trans-

ferred to Newport, R. I., during the Secession War. Here stand the Midshipmen's Quarters, Officers' Quarters, Gunnery Building, Observatory, Hospital, Department of Steam Engineering, and Gymnasium. The Library contains 18,000 volumes, and many trophies and flags, and portraits of Farragut, Porter, Perry, Decatur, Preble and other naval chieftains. The Academy grounds are adorned with fine old trees, monuments to heroes of the American fleets, and trophy cannon. There are 57 instructors and 280 naval cadets, each Congressional district being entitled to send one youth, physically and mentally sound, who must bind himself to serve eight years (including the time at the Academy) in the United-States Navy. Each naval cadet receives $500 a year.

Fort McHenry occupies the site of the Revolutionary battery on Whetstone Point, three miles below Baltimore, and is garrisoned by three companies of United-States artillery. It is a star-fort of the old style, with a moderate armament. Fort Carroll, on an artificial island in the Patapsco, 6½ miles below Baltimore, is an immense and costly granite work, with heavy guns in its casemates. Fort Washington is an ancient stone defence, on the



MONUMENTS AT BALTIMORE AND ANNAPOLIS.

Potomac River, 13 miles below Washington. It was designed by Major L'Enfant, in 1812. Fort Foote, also on the Potomac, dates from the period of the Secession War. The United-States Marine Hospital has a group of modern buildings just north of Baltimore. The battle-field of Antietam is consecrated by a National Cemetery, containing the graves of 4,688 dead heroes. The other National cemeteries are at Annapolis and Loudon Park.

Chief Cities.—Baltimore, the metropolis of Maryland, stretches along the pleasant hills which border a deep estuary of the Patapsco River, 14 miles from Chesapeake Bay. It is the fourth maritime city of the Republic, following New York, Boston and New Orleans; and 3,000 foreign vessels arrive and depart yearly, besides an immense coastwise fleet. Steamships run to Liverpool, Queenstown, Glasgow, Bristol, London, Belfast, Antwerp,

Bremen, Havre, and other European ports. The chief exports are petroleum, grain and tobacco; and iron, coffee and salt are imported in great quantities. The convergence of many railways makes Baltimore a favorite shipping-point for Western grain and other products, which are handled by several elevators. The exports exceed $50,000,000 a year. In point of manufactures, this is the eighth American city, with iron-mills, smelting-works, sugar-refineries, ship-yards, cotton-mills, and other industries, producing $135,000,000 a year. At the clearing house its total exceeds $700,000,000 a year. The City Hall, built of Maryland marble, in 1868–75, cost $2,271,000; the United-States Post-Office, a Renaissance palace, cost $2,000,000; and the Exchange has Ionic colonnades of Italian marble. Among other interesting features are the venerable Cathedral, famous in Catholic history; the Norman basilica of St. Paul's, pertaining to the Episcopalians; the Peabody Institute; the Enoch-Pratt Free Library; the Johns-Hopkins University; the Masonic Temple and the Odd-Fellows' Hall; and many imposing churches, convents and asylums, and rich libraries. Druid-Hill Park covers over 700 acres, and includes a fine old colonial estate, patented in 1688, and famous for its great oaks. It was opened to the people in 1860, and has noble drives and rambles, lakes and fountains, towers and kiosks, bridges and statues, herds of deer and sheep, and a zoölogical garden. The city has several other pleasant parks; and in the suburbs are the beautiful Greenmount and Loudon-Park cemeteries. The water-works bring water from Loch Raven, on the Gunpowder River, to the great reservoirs at Clifton and in Druid-Hill Park, leading five miles through a tunnel, cut through solid gneiss. They cost upwards of $5,000,000. Baltimore has the finest hotel in Maryland, the Hotel Rennert, built in 1885–7, under the personal supervision of its owner, Robert Rennert, and by day-labor, in order to secure a more solid and lasting structure. The first and second floors are of tiled concrete and rolled iron beams, and the other floors have asbestos felting and plaster on iron lathing, with partitions of hollow concrete blocks, thus making the house fire-proof, in addition to which the stairs are of marble and iron. No effort or expense has been spared to make the Rennert equal to any hotel in America, in decoration and furnishing, ventilation and sanitary arrangements. From the Ariel summer garden on the top of the house, a broad view is given over the city and suburbs, since the hotel stands on high ground, in the fashionable quarter of Baltimore. Among the guests have been President Harrison and all his Cabinet, nearly all the United-States Senators (Sherman and Hoar, Evarts and Hawley, and others), Edwin Booth, Mary Anderson, Adelina Patti and many other notables. The Rennert is on the European plan, and the cuisine, as well as the elegant and substantial fire-proof structure itself, has given to its owner a world-wide fame.

BALTIMORE: THE POST-OFFICE.

BALTIMORE: THE COUNTY COURT-HOUSE.

BALTIMORE: HOTEL RENNERT.

The quaint old capital of Maryland, Annapolis, with its venerable churches and mansions, on streets converging at the State House, rests along the Severn River, two miles from Chesapeake Bay. Frederick, in the rich limestone plain near the Catoctin Mountains, "green-walled by the hills of Mary-

land," was the scene of Whittier's poem of "Barbara Frietchie." Hagerstown, the capital of Washington County, is a manufacturing city, in the hill-country. Cumberland, with large rolling-mills and glass-works and country-trade, nestles on the upper Potomac, between Wills', Dan's, and the Knobly Mountains, and near the deep gorge of the Narrows.

BALTIMORE: OLD POST-OFFICE.

The Finances of Maryland are safely and wisely administered. The net debt of the State is below $3,000,000; and the yearly expenditures are about $2,500,000. Frederick and Annapolis have strong banks; and there is a large capital invested in the financial institutions of Baltimore, whose saving-banks alone have deposits exceeding $25,000,000. The Merchants' National Bank, of Baltimore, dates from 1835, having succeeded the United-States Bank; and Johns Hopkins was its president for seventeen years, until his death (in 1873). The presidency is now occupied by Major Douglas H. Thomas, for nearly thirty years in the banking business here. This is the largest bank in Maryland, and has a capital of $1,500,000, and a surplus and undivided profits of nearly $600,000, making a working capital of above $2,000,000, with deposits exceeding $5,000,000. The bank has never passed a dividend, and never paid less than six per cent. a year. The directors are conspicuous and influential Baltimoreans, whose efforts give strength to this ancient and successful institution. The Merchants' National Bank owns and occupies one of the quaintest buildings in the South, adjoining the old post-office.

BALTIMORE: MERCHANTS' NATIONAL BANK.

Several of the private banking-houses of Baltimore rank among the most solid and substantial in the country, being conducted by men of large capital and long experience. Foremost among these stands Alexander Brown & Sons, founded in 1805, by Alexander Brown, and re-organized in 1811 under its present title. The New-York, Philadelphia and Boston banking-houses of Brown Bros. & Co., and the London firm of Brown, Shipley & Co., originally started as branches of the Baltimore house, are closely allied with the Baltimore firm, their American offices being connected by private wires. Alexander Brown & Sons conduct a large foreign and domestic business, in stocks and bonds, bills of exchange and letters of credit, and the negotiation of railroad and municipal loans. The personnel of the firm includes Alexander Brown, a great-grandson of the founder of the house, and Wm. G. Bowdoin, for nearly 20 years a partner. Beginning almost with the century, this great financial institution has enjoyed a long career of success, and is honorably known all over the world. Under the able and conservative influences of financial institutions like these, the city of Baltimore has attained a noble mercantile preëminence on the Southern seaboard, and far into the interior.

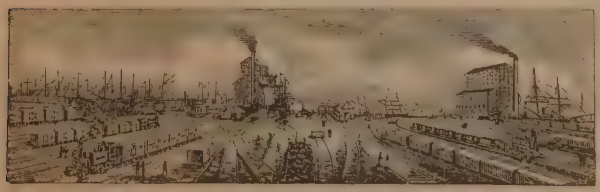
BALTIMORE: ALEX. BROWN & SONS, BANKERS.

Railroads.—The Baltimore & Ohio Railroad was organized in 1827, and opened construction the next year, reaching Ellicott's Mills in 1830. The work of grading was begun by Charles Carroll of Carrollton, then the only surviving signer of the Declaration of Independence. The motive power was by relays of horses, which drew the little trains to Frederick and back, the horses being changed at the Relay House. The cars were clapboard shanties on wheels, 12 feet long, with three windows on each side, and a deal table in the centre. The driver sat on a high seat in front, and the conductor stood on steps in the rear. One horse drew each car, at seven miles an hour; and when the wheels

were made larger, and better horses were used, they made ten miles an hour. In 1830 Peter Cooper tried steam-power on the line to Ellicott's Mills, his engine weighing less than a ton, with a little upright boiler like that of a kitchen range. This was the first locomotive built in America, and Peter Cooper acted as engineer, brakeman and conductor of the first passenger-train, containing the directors of the road, and making the run of 13 miles in 57 minutes. The line reached Harper's Ferry and Washington in 1836; Cumberland, in 1842; and Wheeling, in 1853. Up to that time its 379 miles had cost $15,639,000. The railway has constructed many interesting works, from the noble viaduct at the Relay House to the great tunnels, bridges, viaducts and galleries of the mountain-region. On its grand routes from the East to the West, crossing the Alleghany Mountains, the Baltimore & Ohio line traverses some of the finest scenery on the continent, and passes many historic and interesting points, like Harper's Ferry, Cumberland, Pittsburgh, and Wheeling, and the famous summer-resorts of Deer Park and Oakland. It reaches out from Baltimore to Philadelphia and New York, on one side, and by way of Washington to the West on the other, finding its farthest terminals at Cincinnati and Chicago. Its magnificent equipment is unsurpassed on any road, and its perfect net-work of connections to all routes of the company make the Baltimore & Ohio one of the pre-eminent railroads of America.

BALTIMORE: OFFICE OF THE BALTIMORE & OHIO RAILROAD.

The Baltimore & Potomac Railroad runs from Baltimore to Washington, and to Pope's Creek, on the lower Potomac.



BALTIMORE: BALTIMORE & OHIO RAILROAD TERMINALS.

The Northern Central line runs from Baltimore to Harrisburg; the Western Maryland, from Baltimore to Williamsport; and the Maryland Central, from Baltimore to Delta (Penn.). There are two first-class railways between Baltimore and Philadelphia. The great railway-bridge across the Susquehanna at Havre de Grace was built by the Keystone Bridge Co., of Pittsburgh. Railroads running southwest from Delaware traverse the Eastern Shore to Chesapeake Bay, reaching Crisfield, Cambridge, Oxford, Centreville, Chestertown, and Easton. The Atlantic Coast Line, from Boston and New York to Florida and the Gulf States, passes through Baltimore, where it has well-equipped offices. The Chesapeake and Delaware Canal unites the two great bays. The Susquehanna & Tide-Water Canal follows the Susquehanna River from Pennsylvania to Havre de Grace.

The Manufactures of Maryland exceed $100,000,000 in their annual output, having an invested capital of $70,000,000, and employing 75,000 operatives.

The Southern States are largely supplied with dry goods from Baltimore, which in this department of trade is a leading distributive centre. One of the great dry-goods houses of this country is Hurst, Purnell & Co., whose history, covering a period of over half a century, is closely interwoven with the mercantile history of Baltimore. This extensive

BALTIMORE: HURST, PURNELL & CO.

business was founded in 1831, and from that time to the present the house has enjoyed an uninterrupted success, always maintaining, through evil and good report, the highest standard of mercantile integrity, which, together with a broad, comprehensive and capable management, have been conspicuous characteristics of the house since its foundation. Their travelling salesmen penetrate all the lower Atlantic and Ohio-Valley States, continually replenishing the stocks of thousands of the dry-goods stores in the various cities and villages embraced in this territory. In their spacious seven-story iron building Hurst, Purnell & Co. carry one of the most complete and attractive stocks of dry goods and notions to be found in this country.

BALTIMORE: ARMSTRONG, CATOR & CO.

Baltimore is a large importer and manufacturer of millinery, which is distributed thence throughout the entire South, and large areas of the West. The leading house is Armstrong, Cator & Co., founded in 1816 by Thomas Armstrong, who was joined in 1847 by Robinson W. Cator, the present head of the firm. The six handsome buildings occupied as salesrooms stand on the site of Rochambeau's headquarters and the old Poe mansion. The resources of the firm are not far from $1,000,000; and their employees number 200, independent of those in their manufacturing department. The goods which this enterprising company sends throughout all the country, from Pennsylvania to Florida, and also to Missouri and Kansas and intermediate States, include not only millinery, but also large lines of notions and white goods. Armstrong, Cator & Co. are the peers of any millinery house in the United States.

In Baltimore and vicinity is made three fifths of all the cotton-duck used in the United States, and here are located several well-known cotton-duck mills. The largest of these, and, in fact, the largest in the world, are the Mount-Vernon Company's mills, which started in 1848, under the presidency of William Kennedy, and the management of David Carroll, one of the pioneers of this industry. Cotton-duck is used for a variety of purposes — for threshers and reapers, for belting and hose, for sails, for mining, for tents and other army purposes, for mail pouches, for awnings, and other uses. At these mills it is made in various widths, from four to 132 inches, and of 50 different thicknesses. The Mount-Vernon mills employ about 1,300 people, with 50,000 spindles, and produce yearly 10,000,000 yards of cotton-duck, consuming 25,000 bales of cotton. In the early days of these mills, it was necessary only to haul out a bale of cotton a day, in a cart, which brought back the total product; but now it requires three six-horse teams, each making two loads a day, and each time carrying very many times the capacity of the old-fashioned cart with its single trip a day. In 1876, the Mount-Vernon Company was awarded a medal at the Centennial Exposition for the best cotton-duck. The mills are picturesque groups of buildings adjacent to Druid-Hill Park, and at Phœnix. For the last 13 years, Richard Cromwell has been the president, and under his administration the works have been materially enlarged.

BALTIMORE: MOUNT-VERNON COTTON-DUCK MILLS.

Fine Baltimore hats have long been the standard for the whole country. While American manufacturers had a tedious struggle in overcoming the prejudice existing in favor of foreign hats, a steady endeavor to win the approval of Americans for those of American make did at last secure a genuine success, and to-day American-made hats stand unrivalled in the world. Jacob Roger's factory, erected in 1805, on the site of the present Corn and Flour

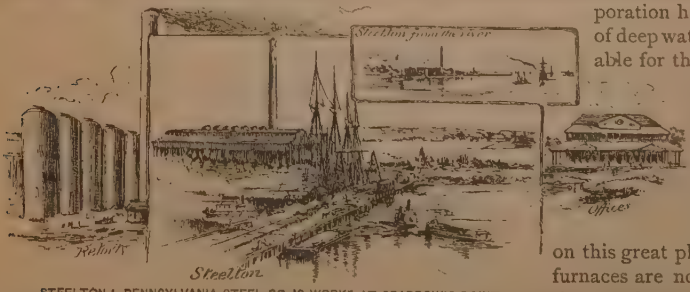
BALTIMORE: BRIGHAM, HOPKINS & CO.

Exchange, was then the largest in America; and in 1814 Runyon Harris built another hat-factory, which passed, a few years later, into the hands of Aaron Clap & Co., a house founded in 1817. As new men entered the firm, the style and title changed several times, until finally the house of Aaron Clap & Co. was succeeded in a direct line by Brigham & Hopkins, now Brigham, Hopkins & Co., who are recognized as leading American makers of fine straw hats. Their factory at the corner of German and Paca Streets is a spacious and architecturally handsome building, and the celebrity of the products of the firm gives them the foremost position in their line of trade. With salesrooms in New York and Baltimore, Brigham, Hopkins & Co. show the best products, manufactured with all the traditional skill of Baltimore hatters, increased by the practical experience of generations.

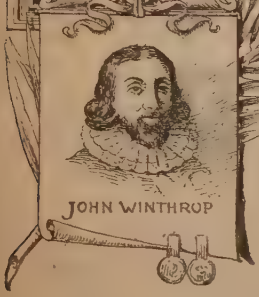
The Robert Poole & Son Iron Works are supplied with a full equipment of the heaviest and most modern tools and appliances; and during the last decade their business has wonderfully increased. The company manufactures machine-moulded gearing, stationary engines and boilers, and the famous Leffel turbine water-wheels; together with a great variety of machinery for the distribution of power in cotton and woolen mills, grain elevators, fertilizer and paper factories, and flour and grist mills. Another celebrated product is the cable-driving machinery used by street cable railways in New York, Chicago, St. Paul, Kansas City, Omaha, Denver, and other cities, whose highly successful plants are made by the Pooles. The works of the Robert Poole & Son Company, cover 25 acres, in the Woodberry suburb of Baltimore, with substantial buildings. Robert Poole founded the business in 1841; and after the lapse of a half-century he still remains as its president and treasurer, the concern in 1889 having been incorporated, with a paid-in capital of $350,000, and employing 400 experienced mechanics.

BALTIMORE: ROBERT POOLE & SON CO.

The foremost iron and steel manufacturers in Maryland are the Pennsylvania Steel Company, whose new works are at Sparrow's Point, nine miles from Baltimore, where the corporation has a long stretch of deep water frontage, suitable for the discharging of the cargoes of iron ore from its Cuban mines. Between 1887 and 1891 the company spent over $2,000,000 on this great plant. Four blast furnaces are now in full operation; and a Bessemer plant and a rail-mill have also been erected and started. There is also a very complete ship-building plant at Sparrow's Point, and it has already done considerable work of value. The land owned by the Pennsylvania Steel Co. in this locality, on tide-water, is about 1,000 acres. The main and older works are at Steelton (Penn.), and are told of in the Pennsylvania chapter.



STEELTON: PENNSYLVANIA STEEL CO.'S WORKS AT SPARROW'S POINT.



HISTORY.

"*Mr. President:*

"I shall enter on no encomium upon Massachusetts; she needs none. There she is. Behold her, and judge for yourselves. There is her history; the world knows it by heart. The past, at least, is secure. There is Boston, and Concord, and Lexington, and Bunker Hill; and there they will remain forever. The bones of her sons, falling in the great struggle for Independence, now lie mingled with the soil of every State from New England to Georgia; and there they will lie forever. And, sir, where American liberty raised its first voice, and where its youth was nurtured and sustained, there it still lives, in the strength of its manhood and full of its original spirit. If discord and disunion shall wound it, if party strife and blind ambition shall hawk at and tear it, if folly and madness, if uneasiness under salutary and necessary restraint, shall succeed in separating it from that Union by which alone its existence is made sure, it will stand, in the end, by the side of that cradle in which its infancy was rocked; it will stretch forth its arm, with whatever vigor it may still retain, over the friends who gather round it; and it will fall at last, if fall it must, amidst the proudest monuments of its own glory, and on the very spot of its origin."
—DANIEL WEBSTER.

The inhabitants of Massachusetts, before the invasion from Europe, were several tribes of Algonquin Indians—the Pawtuckets, in the Merrimac and Mystic valleys; the Massachusees, around Boston; the Nausets, on Cape Cod; the Wampanoags (or Pokanokets), toward Narragansett Bay; and the Nipmucks, in the Nashua Valley and Worcester County. The Connecticut Valley contained the Squawkeag, Nonotuck, Waranoke, Agawam, Tunxis, and Podunk tribes, all confederated under the headship of the Pocomtucks, who dwelt about Deerfield. These allied clans dominated the valley from Brattleborough to Hartford. The wild hill-country to the west, as far as the

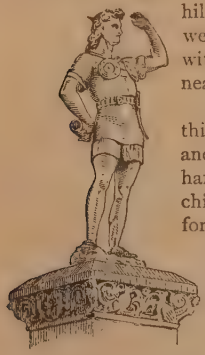
STATISTICS.

Settled in	1620
First Perm't Settlement,	Plymouth.
Founded by	Englishmen.
One of the 13 original States.	
Population, in 1885,	1,942,141
Whites,	1,922,944
Blacks,	12,999
Americans,	1,415,274
Foreigners,	526,867
Males,	932,884
Females,	1,009,257
Population in 1890,	2,238,943
Polls,	567,959
Vote for Harrison (1888),	183,892
Vote for Cleveland (1888),	151,855
Real Property (1890),	$1,600,137,807
Personal Property,	$553,996,819
State Debt (Jan. 1, 1802),	$27,929,416
Sinking and Trust Funds,	$34,338,866
Counties,	14
Cities (Pop. over 12,000),	28
Towns,	323
Number of Post-offices,	863
Railroads (miles),	2,094
Manufactures (yearly),	$631,000,000
Colleges,	13
Professional Schools,	16
Public Schools,	7,329
Private Schools and Academies,	511
Pupils, of all ages,	429,671
Public Libraries,	569
Vols. in Pub. Libraries,	3,569,085
Area (square miles),	8,315
Farm Land (acres),	3,898,429
U. S. Representatives (1893),	13
Militia,	5,329
260 Nat. Banks, Dep'ts,	$167,000,000
180 Sav'gs " "	$400,000,000
Co-operative Banks,	108
Daily Papers,	55
Periodicals, etc.,	655
Temperature,	—20° to 100° F.
Longitude,	69°53′ to 73° 32′ W.
Latitude,	41° 14′ to 43° 53′ N.
Mean Temperature (Boston),	40°

TEN CHIEF CITIES AND THEIR POPULATIONS. (Census of 1890.)

Boston,	448,477
Worcester,	84,655
Lowell,	77,696
Fall River,	74,398
Cambridge,	70,028
Lynn,	55,727
Lawrence,	44,654
Springfield,	44,179
New Bedford,	40,733
Somerville,	40,152

Hudson, lay desolate and empty, except for the few wigwams of the Housatonics, in the Stockbridge region. Each tribe contained several local clans, whose names, attached to hills, rivers, and lakes, are the only memorials of a vanished nation. They were a brave and simple race, subsisting mainly by hunting and fishing, with little plantations of corn and beans, and dwelling in rude wigwams, near the bright ponds and in the fair valleys.


BOSTON : NORSEMAN STATUE.

Some people suppose, on the evidence of the Icelandic Sagas, that this coast was visited by the Norsemen, about the time of the Crusades, and that Leif Ericsson, one of their Viking chiefs, suffered death at the hands of the natives near Boston Harbor. A noble bronze statue of this chieftain adorns Commonwealth Avenue, in Boston. Prof. E. N. Horsford, the author of several learned monographs about the ancient Norse colonies in Massachusetts, has erected a picturesque stone memorial tower, near the confluence of Charles River and Stony Brook, where he claims to have traced the remains of the ancient fortress of Norumbega.

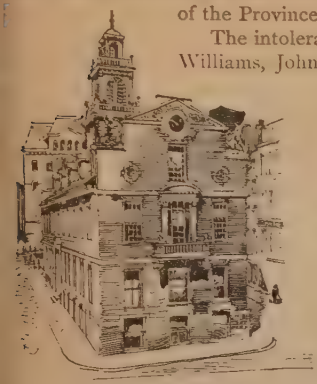
Before the year 1500, the Cabots may have cruised along this silent coast. Later came Verrazano, Cortereal and other explorers; and much later, Pring, Champlain, Waymouth and others. Gosnold established an ephemeral colony on Cuttyhunk, one of the Elizabeth Islands, in 1602; and in 1614 Capt. John Smith made a map of the coast. Through these explorations the way was opened for the occupation by religious enthusiasts from England.

The settlements occurred at several points. The Pilgrim Fathers, a band of evangelical Separatists (Congregationalists) from the Church of England, after twelve years of exile in Holland, sailed from Delft for America, intending to found a colony near the Hudson River. But their ship, the *Mayflower*, made its landfall farther north, at Cape Cod; and December 21, 1620, they landed (102 in number) at New Plymouth (whose surrounding country is still known as *The Old Colony*). Half of them died during the first winter. Massasoit, the Indian sovereign, treated the survivors with great kindness, and made a treaty of peace with them. The Massachusetts-Bay colony was founded at Salem by John Endicott, in 1628; and in 1630 Gov. John Winthrop and 17 shiploads of colonists came over seas, and the capital was transferred, first to Mishawum, which was named Charlestown, and next to the Indian corn-fields of Shawmut (then re-named BOSTON). Another and much smaller colony, under Thomas Mayhew, secured a grant from the Earl of Sterling, of the islands of Nantucket and Martha's Vineyard, and held them, under the government of New York, until 1695, when they were ceded to Massachusetts. New colonies moved up and down the coast, and into the interior, founding Lynn and Marblehead, Ipswich and Newbury, on the shores of Essex; the inland towns of Cambridge, Newton, Sudbury, Lancaster, Brookfield and Worcester; and the Connecticut-Valley settlements of Deerfield, Northampton, and Springfield. A noble bronze statue in the latter city commemorates one of these typical pioneers — a sturdy, bearded Puritan, in a steeple-crowned hat, with a hoe in one hand, and a bell-mouthed musket in the other. In 1643, when Cromwell was fighting the King, in England, the colonies of Massachusetts, Plymouth, Connecticut and New Haven formed a confederation for mutual defence against the Indians and the Dutch, and this incipient but formidable United States endured for over 40 years. Massachusetts alone had 4,000 men-at-arms and 400 cavalrymen. The semi-theocratic and ecclesiastical governments of the Plymouth Pilgrims and the Boston

BOSTON : FANEUIL HALL.

CHARLESTOWN : BUNKER-HILL MONUMENT.

Puritans (who in old England had belonged to the party trying to reform the Anglican Church from within) were modified in 1684 by the revocation of the colony charter, and in 1691 Massachusetts, Maine and Plymouth were united in one government, under the name of the Province of Massachusetts Bay in New England.


BOSTON: OLD STATE HOUSE.

The intolerance prevalent in Europe was felt here also, and Roger Williams, John Wheelwright and many other alleged schismatics were driven forth into exile, while others, so contumacious as to be a danger to the community, suffered death. At the same time, Eliot, Mayhew and divers other apostolic men converted ten Indian tribes to Christianity.

For many years parts of New Hampshire and Vermont were included in Massachusetts; and Maine remained a part of it also, from 1651 until 1820. Rhode Island and Connecticut received their first settlers from Massachusetts.

The National Monument to the Forefathers, standing on a high hill near Plymouth, and visible for leagues by land or sea, is an imposing memorial of the Pilgrims. The central figure, Faith, is the largest granite statue in the world (36 feet high); and on pedestals below the base are colossal statues, representing Morality, Law, Education, and Freedom. Historical records and bas-reliefs further adorn this mighty monument. The celebrated Plymouth Rock, "the corner-stone of the Republic," is down near the water-side, under a lofty granite canopy; and many relics of the ancient colonists are sacredly preserved in Pilgrim Hall. A few miles distant across the bay, on Captain's Hill, in Duxbury, a handsome circular stone tower has been erected to the memory of Miles Standish, the military leader of the Pilgrim colony, whose colossal statue crowns its summit, and is visible for six leagues at sea.

PLYMOUTH: PILGRIM HALL.

The Bay colonists, more wealthy, influential and energetic than those of Plymouth, were also less lenient and liberal. Their chief motive in self-exile lay in securing freedom to worship God in their own way. The sagacious English gentlemen who secured the charter, authorizing them to transport and govern colonists here, and to repel invaders, came themselves to Massachusetts, bringing the charter with them, and formed a practically independent State. They banished certain people who differed with them in doctrine, such as the Antinomians and the Quakers. Only four years after the settlement, when England talked of vacating their charter, the colonial leaders fortified Boston harbor and put their train-bands under arms. But in 1684 the charter was vacated, and the self-governing semi-theocratic State was suspended, until after the deposition of Andros in 1689. Sir Edmund Andros was commissioned Governor of New England; but the train-bands of Boston in 1689 overthrew his arbitrary power, and imprisoned him and many of his officers, until they were sent to England for trial. William and Mary, the incoming King and Queen of England, granted the new Province charter; and appointed as Governor (1692) Sir Wm. Phips, a native knight. Then followed the terrible witchcraft delusion, wherein 20 alleged witches were put to death at Salem.

WATERTOWN: NORUMBEGA TOWER.

SUDBURY: LONGFELLOW'S "WAYSIDE INN."

When the settlements began to encroach on their domains, the Indian tribes rose in arms, and there followed a long series of terrible wars, between 1637 (the Pequot war) and 1760 (the conquest of Canada), in which scores of colonial villages were destroyed by the natives, and many thousands of whites suffered death. During the frequent wars between France and England, officers and soldiers of the French army aided the Indians in their forays on Deerfield, Haverhill, and other hamlets. Several naval expeditions sailed from Boston against the French possessions at the northward and eastward, capturing Port Royal (Annapolis); and later the proud fortress of Louisbourg surrendered to New-England forces, and other French settlements in Acadia were captured. Meantime, the Province gained mightily in population and wealth, and also in commercial and military power. There were 250,000 inhabitants here when the British Government began the aggressive acts which resulted in the Revolutionary War. On the soil of this State occurred the first battles of that conflict, in which the larger part of the army was composed of Massachusetts men, many of them veterans of the long campaigns against the French and Indians.

SALEM: HAWTHORNE'S BIRTHPLACE.

A plain stone monument on Lexington Green, and a capital bronze statue of a minute-man at Concord Bridge, commemorate the battles of April 19, 1775, when 800 British grenadiers and light infantry were driven back into Boston, with a loss of 273 men. They would have been annihilated, but for the arrival of Lord Percy with reënforcements. The picturesque old Powder House, still carefully preserved near Somerville, was built before 1720, and captured and emptied by Royal troops in 1774. During the siege of Boston, it became the chief magazine of the American army.

Bunker-Hill Monument (in Charlestown) is a noble granite obelisk, 221 feet high, begun in 1825, Lafayette laying the corner-stone, and finished in 1842, Daniel Webster delivering the address. It commemorates the battle of June 17, 1775, when 1,500 New-Englanders repulsed two determined attacks from 4,000 British regulars, and gave way before the third assault (their powder having been expended), losing in all 450 men to the British 1,054. During the battle Charlestown was burned by hot shot from British batteries in Boston.

CAMBRIDGE: THE WASHINGTON ELM.

The Washington Elm at Cambridge, the site of the ancient Indian councils, and of the town meetings in colonial days, stands near Harvard University, and is carefully preserved, because under its branches, July 3, 1775, Washington took command of the American army. Washington's headquarters in Cambridge, not far from the Elm, is a fine old colonial mansion, subsequently for many years the home of the poet Longfellow. A similar antique house, a little beyond on Brattle Street (formerly Tory Row), is Elmwood, the home of James Russell Lowell. Ball's noble equestrian statue of Washington (made at the Ames works at Chicopee) adorns the Public Garden, at Boston. A marble statue of Washington, by Sir Francis Chantrey, is in the State House. At Newburyport stands J. Q. A. Ward's bronze statue of the great Virginian,

one of the best ever made. On Cambridge Common are three large cannon, captured at Fort Ticonderoga, in 1775; brought to Cambridge by Gen. Knox; and used by Washington in bombarding Boston. The Old State House in Boston is another monument of the Revolutionary days, having been built in 1748, and for many years the seat of the Provincial and State legislatures. Outside, at the head of King (now State) Street, the British main-guard fired upon the citizens, March 5, 1770, killing and wounding many. This affair, called the "Boston Massacre," is commemorated by a monument erected on Boston Common, in 1888. The Old South Meeting-House in Boston dates from 1729, and was the scene of Whitefield's preaching, the election sermons of 150 years, and the most impassioned appeals of the patriot leaders before the outbreak of the Revolution. During the siege, it became a riding-school for the penned-up British cavalry. Like the Old State House, this venerable building is now used as an historical museum, and preserved with sacred care.

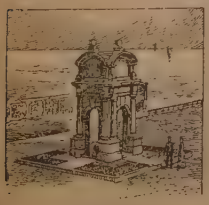
PROVINCETOWN, CAPE COD.

Faneuil Hall was given to Boston by Peter Faneuil, a Huguenot merchant, in 1742, and rebuilt in 1768, becoming in succession a barrack for the British 14th Regiment, a forum for patriotic American speeches, and a theatre for besieged British officers. In later years, even until now, it has been the people's resort in all kinds of excitement, war-meetings, political rallies, receptions, and banquets. It is popularly and affectionately known as "The Cradle of Liberty."

NEWBURYPORT: THE CHAIN BRIDGE AND MERRIMAC RIVER.

British rule in Boston ceased March 17, 1776, when the Royal army went away by sea, the fleet also conveying into exile over 1,000 people of the Province, mostly of the patrician families, who remained loyal to the King. The valor of Massachusetts soldiers and the wise diplomacy of her statesmen contributed largely to the success of the Revolution. Of the 231,791 troops sent by all the American colonies into the field, 67,907 were from Massachusetts, which contributed more than double the number enrolled from any other colony. In the Continental Line alone she had 15 regiments. In 1780 the State adopted a Constitution, to replace its provisional government; and in 1788, by a very small majority, it accepted the Federal Constitution.

In 1786, during a season of great discontent on account of crushing taxes, Daniel Shays headed an insurrection in the rural counties, and raised an army of 2,000 men, with which he broke up the courts and attacked the Springfield arsenal. This force melted away, after a few skirmishes with the 4,000 State troops of Gens. Lincoln and Shepard.



PLYMOUTH: MONUMENT OVER PLYMOUTH ROCK.

The War of 1812–15 with Great Britain and the Mexican War of 1846–47 were unpopular here, but the State furnished efficient quotas for both, especially to the navy, whose bravest ship, the *Constitution*, came from her dockyards. Although the majority of her citizens for a long time had but little sympathy with the Anti-Slavery movement, its leaders, Garrison, Phillips, Sumner and others, were of this community, and John Brown was a native. The men and money and armaments which kept slavery out of Kansas came mainly from this State. When the late civil

CONCORD: THE MINUTE-MAN STATUE.

ENTRANCE TO THE HARBOR OF BOSTON, FROM TELEGRAPH HILL, AT HULL.

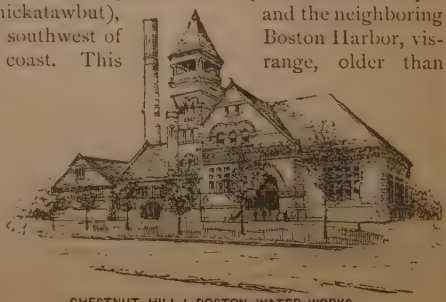
War broke out, in 1861, the Massachusetts militia was the first to respond to the President's call for troops, armed and equipped in all points ready for the field. In the Federal army 159,165 men enlisted, being 15,000 in excess of the quota, and only 1,200 were drafted men. Of these, 3,749 were killed in battle; 9,086 died from wounds or disease, in the service; and 5,866 disappeared as "missing."

Upwards of $50,000,000 were spent in the war by the State and its towns and in private contributions. The chief memorials of those brave but unhappy days are the 269 tattered flags brought home by the volunteers, and now preserved in great arches, fronted with plate glass, in the Doric Hall of the State House. The Army and Navy Monument stands on Boston Common, with allegorical statues of America, the North, the South, the East, the West, Peace, History, the Army and the Navy; and scores of soldiers' monuments and memorial halls may be found in other cities and villages. A memorial battery on one of the hills of Somerville occupies the site of one of Washington's forts, and is mounted with cannon from the civil war. It thus commemorates two struggles for freedom. The Massachusetts Soldiers' Home, on the sea-viewing heights over Chelsea, affords a comfortable refuge for 140 broken veterans whom the State furnished for the military service of the Republic, with daily reveille, tattoo, and taps. The institution is maintained by popular subscriptions.

BOSTON AND CAMBRIDGE: HARVARD BRIDGE.

For the past 25 years the State has been prospering greatly, while changing its investments in navigation into manufactures and Western railroads. The vexed questions of the day, woman suffrage, the prohibition of liquor-sales, the new theology, civil-service reform, socialism, nationalizing of industries, and free-trade, have been and are being discussed and experimented upon; and the State has taken an earnest part in healing the wounds left by the Secession War, and in the development of the New South and the Great West.

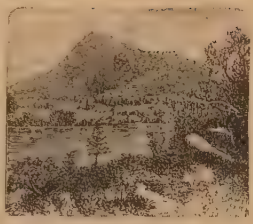
The Name, Massachusetts, comes from a compound word in the language of the Indian aborigines, *Massa*, meaning "Great"; *Wadchooash*, "Hills"; and *et*, "At, or near." The word signifies "Great-Hills Place," or "At the Great Hills." The limited region to which it originally belonged included the meadows of the Neponset River (then inhabited by a tribe of Indians under the chieftainship of Chickatawbut), and the neighboring Blue Hills of Quincy, Milton and Canton, southwest of Boston Harbor, visible for many leagues up and down the coast. This range, older than the Alps or the Pyrenees, exhibits rich turquoise and sapphire tints, deepening into dappled purple in cloudy seasons, and assuming a formidable sable hue in days of storm. THE BAY STATE is a popular name for the Commonwealth, from the ancient title of the Colony of Massachusetts Bay.



CHESTNUT HILL: BOSTON WATER-WORKS.

The Arms of Massachusetts show a blue shield, and thereon an Indian, holding in his right hand a bow, in his left

hand an arrow, point downward, all of gold; and in the upper corner above his right arm a silver star with five points. The crest is a wreath of blue and gold, whereon is a right arm bent at the elbow, and clothed and ruffled, the hand grasping a broad-sword, all of gold. The silver seal sent by the Company of Massachusetts Bay to Gov. Endicott, in 1629, resembled the still earlier Plymouth Colony seal, and bore two pine-trees and a deaf-clad armed Indian, with the label, "Come over and help us." It was a perpetual memorial that the colonists had journeyed here partly to convert the savages. This seal was replaced in 1684 by royalist devices, from England. In 1780 the present State seal was prepared, reviving the Indian, and adding a star, "for one of the United States of America."


MOUNT HOLYOKE.

The Motto was adopted for Massachusetts by the Provincial Congress, sitting in the ancient church at Watertown, behind the American lines, in August, 1775. It had been first written in the Copenhagen-University album, in 1659, by the celebrated Algernon Sidney, son of Dorothy Percy and the Earl of Leicester, statesman, soldier and exile under Cromwell, and author of *Discourses Concerning Governments*. As written, it read:

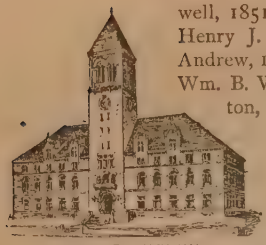
Manus haec inimica tyrannis
Ense petit placidam sub libertate quietem.

The last line, adopted as the motto of Massachusetts, may be translated thus: "With the sword she seeks quiet peace under liberty."

The Governors of the Plymouth colony (1620–92) were: John Carver, Wm. Bradford, Edward Winslow, Thomas Prence, Josiah Winslow, and Thomas Hinckley. The Governors of Massachusetts were: John Endicott, 1629; John Winthrop, 1630–4; Thomas Dudley, 1634; John Haynes, 1635; Henry Vane, 1636; John Winthrop, 1637; Thomas Dudley, 1640; Richard Bellingham, 1641; John Winthrop, 1642; John Endicott, 1644; Thomas Dudley, 1645; John Winthrop, 1646; John Endicott, 1649; Thomas Dudley, 1650; John Endicott, 1651; Richard Bellingham, 1654; John Endicott, 1655; Richard Bellingham, 1665; John Leverett, 1672; Simon Bradstreet, 1679–86; Joseph Dudley, 1686; Sir Edmund Andros, 1686–9; Simon Bradstreet, 1689–92; Sir Wm. Phips, 1692; Wm. Stoughton (acting), 1694; the Earl of Bellomont, 1699; Wm. Stoughton (acting), 1700; Joseph Dudley, 1702; Wm. Tailer (acting), 1715; Samuel Shute, 1716; Wm. Dummer (acting), 1722; Wm. Burnet, 1728; Wm. Dummer (acting), 1729; Wm. Tailer (acting), 1730; Jonathan Belcher, 1730; Wm. Shirley, 1741; Spencer Phips (acting) 1749; Wm. Shirley, 1753; Thomas Pownal, 1757; Thomas Hutchinson (acting), 1760; Sir Francis Bernard, Bart., 1760; Thomas Hutchinson, 1769–74; Gen. Thomas Gage, 1774; Provincial Congress, 1774; The Council, 1775–80. *State Governors:* John Hancock, 1780–85; James Bowdoin, 1785–87; John Hancock, 1787–93; Samuel Adams, 1794–97; Increase Sumner, 1797–99; Moses Gill (acting), 1799–1800; Caleb Strong, 1800–7; James Sullivan, 1807–8; Christopher Gore, 1809–10; Elbridge Gerry, 1810–12; Caleb Strong, 1812–16; John Brooks, 1816–23; Wm. Eustis, 1823–25; Levi Lincoln, 1825–34; John Davis, 1834–36; Edward Everett, 1836–40; Marcus Morton, 1840–41; John Davis, 1841–43; Marcus Morton, 1843–44; George N. Briggs, 1844–51; George S. Bout-

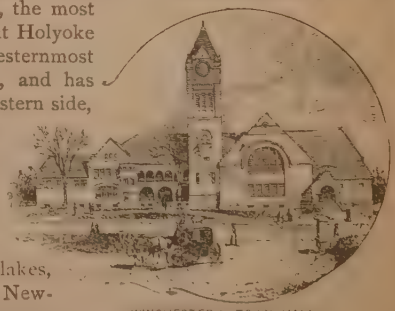
GREYLOCK, IN BERKSHIRE.

PITTSFIELD: COURT HOUSE AND ATHENÆUM.

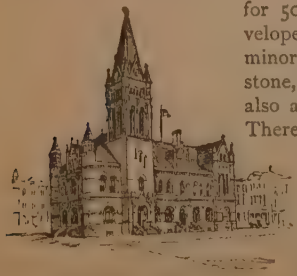

CAMBRIDGE: CITY HALL.

well, 1851-53; John H. Clifford, 1853-54; Emory Washburn, 1854-55; Henry J. Gardner, 1855-58; Nathaniel P. Banks, 1858-61; John A. Andrew, 1861-66; Alex. H. Bullock, 1866-69; William Claflin, 1869-72; Wm. B. Washburn, 1872-74; Thos. Talbot (acting), 1874; Wm. Gaston, 1875-76; Alexander H. Rice, 1876-79; Thomas Talbot, 1879-80; John D. Long, 1880-83; Benjamin F. Butler, 1883-84; Geo. D. Robinson, 1884-87; Oliver Ames, 1887-89; J. Q. A. Brackett, 1889-91; and Wm. E. Russell, 1891-93.

Descriptive.—Massachusetts covers an area of 8,040 square miles, forming a parallelogram 160 miles long from east to west, and 50 miles wide from north to south, except on the coast, where it reaches a breadth of 90 miles. The land still merits its ancient title of "The Place of Hills," for there is but little absolutely level ground. The coast is lined with highlands—Po Hill and the Oldtown Hills, about Newburyport; Castle Hill, at Ipswich; the rugged heights of Cape Ann; the Middlesex Fells and their seaboard foot-hills; the Blue Hills of Milton; the Manomet Bluffs, below Plymouth; and many others. Farther inland, the country becomes mountainous, culminating in Mount Wachusett (2,018 feet) and Mount Watatic (1,847 feet), in Worcester County. The beautiful valley of the Connecticut is fringed with steep trap-rock hills, the most conspicuous of which are Mount Tom and Mount Holyoke (1,120), near Northampton. Berkshire, the westernmost county, is covered with picturesque highlands, and has many rare beauties of natural scenery. On its eastern side, from north to south, runs the Hoosac Range (1,200 to 2,500 feet), a continuation of the Green Mountains, pierced by the famous Hoosac Tunnel; and across the narrow Housatonic Valley rises the higher Taconic Range, with the peaks of Greylock (3,535 feet), Mount Everett and others. This beautiful region of mountains and lakes, and pastoral valleys is frequented in summer by New-York and Boston families, who have country-houses at Lenox, Stockbridge, and Pittsfield. "Somebody has called Berkshire the Piedmont of America. I do not know how just the appellation may be, but I do know that if Piedmont can rightly be called the Berkshire of Europe, it must be a very delightful region."


WINCHESTER: TOWN HALL.

The Merrimac crosses the northeastern corner of Massachusetts for 35 miles, rising in the White Mountains, and entering the sea at venerable Newburyport. It has some commerce, being navigable for small vessels as far up as Haverhill (18 miles); but its chief value is in a series of enormous and fully improved water-powers, at Lowell, Lawrence, and Haverhill. The Connecticut River, rising near the Canadian frontier, and crossing Massachusetts for 50 miles, is also valuable mainly for its water-powers, developed by dams at Holyoke, Turner's Falls, and other points. The minor streams, the Charles, Taunton, Nashua, Concord, Blackstone, Deerfield, and Housatonic are useful in the same way, and also afford interest to artists, local poets and rustic fishermen. There are scores of smaller streams, of value for their water-power, most of which is utilized by factories.

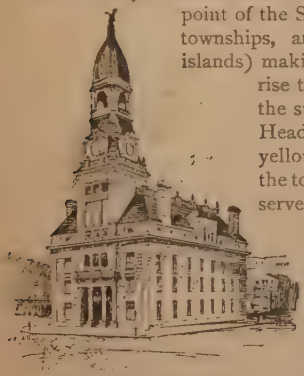

WORCESTER: POST-OFFICE.

The largest unbroken wilderness in Massachusetts lies in the Old Colony, near the scene of the first settlements, between Plymouth and Cape Cod; and so completely has this tract remained in the kindly care of nature, that it now harbors thousands of deer, guarded by the State game-

laws. Farther around towards Buzzards Bay are large cedar swamps, amid which gleam several bright lakes and ponds. Along the southeastern coast extend thousands of acres of cranberry bogs, where these pleasant fruits are cultivated more extensively than anywhere else in America. Other localities on the coast, especially the long Holland-like meadows of Essex, with the blue sea peeping over their verge, produce great quantities of salt hay.

FALL RIVER: POST-OFFICE.

The most prominent natural feature is Cape Cod, a sandy peninsula several miles broad and 65 miles long, projecting east, then running north, and then for a short distance west, like "a bare and bended right arm," sheltering Cape-Cod Bay, and with Cape Ann (the left arm, on guard) forming Massachusetts Bay. The cape has twelve towns, famous for gallant seamen. The harbors of Chatham, Hyannis, Cotuit, and Wood's Holl are on the outside, those of Barnstable, Wellfleet, and Provincetown on the inside. Provincetown, near the great revolving light on Race Point, the tip end of Cape Cod, is a quaint old port and town of 4,642 inhabitants, 120 miles from Boston by rail, and 55 miles by water. Martha's Vineyard is an island of 120 square miles (21 by six miles) off the southern point of the State (at Wood's Holl), with 4,369 inhabitants, forming six townships, and (with the adjacent town of Gosnold, covering 13 islands) making up the county of Dukes. At one end of the island rise the sandy hills of Chappaquiddick, and at the other end the surf pounds and tears against the tremendous cliffs of Gay Head, with their folded and vividly colored strata of white and yellow, red and green, brown and black. Gay-Head town and the township of Mashpee, on the south side of Cape Cod, are reserved for a few hundred Indians, the descendants of the Cape-Cod and island tribes, with an admixture of Portuguese and African blood. The coast Indians were always loyal to the colonists, and fought bravely alongside their white neighbors against hostile natives, and afterwards against the redcoats of England. Their descendants live a strange, unsettled life and excel mainly in the whale-fisheries. In the old days, Edgartown, the capital of the Vineyard, was celebrated for its successful whaling fleets and daring seamen, but these have passed away, and for 40 years the island has been falling off in population. It enjoys considerable fame as a summer-resort, together with Nantucket, another lonely island, farther out to sea, and reached by daily steamers from Wood's Holl and Martha's Vineyard. Nantucket covers 60 square miles, and has 3,265 inhabitants, being fewer than at the time of the first Provincial census, in 1765, and only a third of the population in the palmy days of 1840, when Nantucket ships were seen in all ports.



FALL RIVER: CITY HALL.

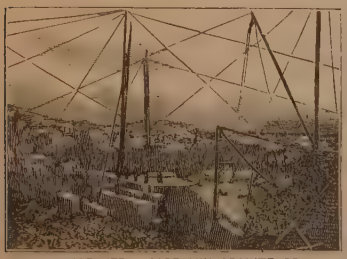
The Geology of the Bay State is concerned mainly with metamorphic rock, and the glacial drift of Cape Cod and Plymouth County, in sands, gravel, and bowlders; the conglomerates and slates around Boston; the new red sandstone of the triassic period, in the Connecticut Valley, imprinted with the huge footprints of pre-historic animals; and the metamorphosed rocks of the Berkshire Hills. There are large granite quarries on Cape Ann and in the Blue Hills, near Boston. At Longmeadow, in the Connecticut Valley, great quantities of red sandstone are quarried. The white-marble quarries of Lee have been worked for many years, and

BOSTON: CHAMBER OF COMMERCE.

furnished material for the United-States Capitol at Washington. Among other mineral products are the silver-bearing lead of Newburyport, whose mines are no longer worked; the emery of the western counties; and the hematite iron ores of Berkshire. The sand used for making fine cut-glass ware in Pennsylvania comes from Cheshire, in Berkshire County. A very hard and graphitic coal is found in the southeastern counties, but it cannot be operated profitably.

GLOUCESTER: CAPE-ANN GRANITE CO.

The granite-producing industry is dominated by the Cape-Ann Granite Company, founded in 1869, by Col. Jonas H. French, still its president. Its office is in Boston; and the works are at Gloucester, near its great quarries at Bay View, where the company owns 300 acres, and keeps from 400 to 700 men at work. These quarries were opened in 1849, and lay idle from 1865 to 1869, when they were purchased by the present company. The granite is carried on a steam railway over a mile to the wharves, where it is shipped for distant ports. Many millions of paving blocks have been sent hence to every great American city, and hundreds of monuments, besides vast numbers of engine-beds for the Michigan copper-mines, and gun-platforms for forts. Among the large structures built from this quarry are the Boston and Baltimore Post-offices, the new Suffolk-County Court House at Boston, the Danvers Asylum, the East-River Bridge piers, the Charles-River-Aqueduct Bridge, the wonderful "hanging-stairways" in the Philadelphia Public Building, and many notable Government edifices.



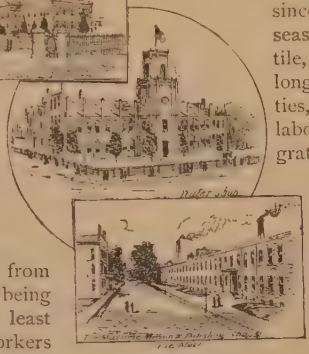
GLOUCESTER: CAPE-ANN GRANITE CO.

The Climate ranges from 20° below zero to 100° above (Fahrenheit), with frequent sharp transitions, long winters, arduous springs, lovely summers and pleasant autumns. The finest season in the year is the Indian summer, coming after the late September frosts, when for two or three weeks gentle southwest winds prevail, with a wonderfully transparent atmosphere, skies of the purest azure, and brilliant cloud-effects. The winter comes down upon the land in December, and lasts into March, with abundant snow and ice, especially in the interior counties. The mean average temperature is 49°, at Boston, and the annual rainfall is 42 inches. The weather of eastern Massachusetts is foretold with surprising accuracy by the scientific observers who occupy the observatory on Blue Hill, endowed by the generosity of the Rotch family, of Milton.

Agriculture employs 80,000 persons, on 45,000 farms, of which 41,000 are owned by their occupants. The domestic animals, valued at $17,000,000, include 272,000 head of cattle, 66,000 horses, 75,000 sheep and lambs, 135,000 swine, 15,000 dogs, 7,500 swarms of bees, and 1,820,000 domestic fowls. The valuation of the farms is $216,000,000, being $111,000,000 for the land (939,000 cultivated acres, at $60,000,000; 1,570,000 uncultivated, at $25,000,000; 1,390,000 woodland, at $26,000,000); $74,000,000 for buildings (46,100 dwellings, at $1,010 each; and 50,275 barns, at $409); $17,000,000 for animals; $7,000,000 for machinery; and $7,000,000 for fruit-trees and vines. The annual product of the farms is $48,000,000, including $13,000,000 in dairy articles; $11,000,000 in hay, straw, and fodder; and $5,000,000 in vegetables. Among the articles are 257,000 pounds of

GLOUCESTER: CAPE-ANN GRANITE QUARRIES.

wool, 9,700,000 pounds of butter, 360,000 pounds of cheese, 73,000,000 gallons of milk, 50,000 gallons of maple syrup, 800,000 pounds of maple-sugar, 5,000,000 gallons of cider, 7,000,000 dozen eggs, 4,200,000 pounds of tobacco, 4,500,000 bushels of apples, and 4,000,000 quarts of strawberries. The lowlands of Cape Cod and the adjoining towns, Plymouth, Middleboro, Carver and Rochester, produce yearly 300,000 bushels of cranberries. This crop has trebled since 1883, and new bogs are prepared every season.

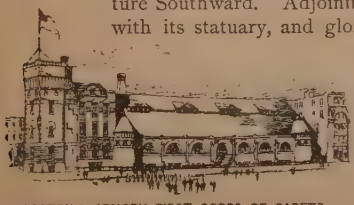


SPRINGFIELD : UNITED-STATES ARMORY.

The soil is not fertile, except in a few localities, but agriculture has long been carefully fostered by the State and by local societies, and produces valuable returns, as a reward for very hard labor. In the western counties, especially, the drain of emigration and the drift toward the cities have so far depopulated the hill-towns that extensive areas of abandoned farmlands are being reclaimed by the forests. Meanwhile, the State fails to raise enough provisions for her own consumption. The value of farm-products rose from $32,000,000 in 1865 to $47,000,000 in 1885, the gain being chiefly in market-gardens and dairies. This is the least agricultural State in the Union, only 9 per cent. of its workers being on the farms. The first State Commissioner of Agriculture was appointed in 1836, and the State Board of Agriculture began its work in 1852. It has 44 members, and has published over 400,000 copies of its 38 yearly reports.

The Massachusetts Agricultural College, at Amherst, called the best in America, has an experimental farm of 383 acres, on a rich plain, girt around with mountains. The Bussey Institution, near Boston, is a school of agriculture and horticulture attached to Harvard University, with a handsome Victoria Gothic building, and rich endowments. Connected therewith is the Arnold Arboretum, containing all manner of trees and shrubs that can live outdoors here, and endowed with $100,000. 137 acres of the 360 belonging to the institution are included in the Arboretum; and also form part of the Boston park system.

Parks and Pleasure-Grounds have been provided for the people in great variety. The oldest of these is the famous Boston Common, with 48 acres of velvety lawns and venerable trees, set apart for public uses in 1634. Here witches, Quakers, and murderers were executed, and scores of hostile Indians bravely suffered the death-penalty. At a later period, its hills were covered with the camps and forts of the British garrison; and in 1812 the American troops assembled for the defence of the town encamped here. In 1861–5 scores of thousands of volunteers were reviewed on the parade ground, before their departure Southward. Adjoining the Common, on the west, is the Public Garden, with its statuary, and glorious displays of tulips, pansies, rhododendrons, and other flowers. Franklin Park covers 500 acres of picturesque hill-country southwest of Boston, and is visited every pleasant summer-day by scores of thousands of people. The Marine Park, at South Boston, has a long promenade-pier projecting into the harbor, near Fort Independence. The Free Public Forest at Lynn covers 1,400 acres of Trosachlike hills and lakes, around the famous Dungeon Rock, and with pleasant boulevards and parkways. The parks at Springfield, Worcester, New Bedford, Cambridge, and other cities, the Mall at Newburyport, and the commons of the rural villages, afford pleasant recreation-grounds. Five miles north of Boston are the picturesque Middlesex Fells, a region of rocky hills and gorges, covering six square miles,



BOSTON : ARMORY FIRST CORPS OF CADETS.

SHERBORN: REFORMATORY PRISON FOR WOMEN.

with ponds and cascades, and peaks overlooking the sea, on one side, and on the other, Monadnock and Wachusett and many far-away blue mountains. The suburbs of Boston are famed for their beauty. It is an undulating region, finely wooded, and brightened here and there by crystal ponds and arms of the sea. Everywhere there are pleasant country-seats, and here and there the ancient villages nestle under immemorial elms, with venerable mansions of the Georgian era, and historic churches of the Puritan days. Admirable roads traverse these environs; and the railways, diverging from Boston like spokes from a hub, afford facilities for an immense suburban population.

The State Government is composed of a governor, lieutenant-governor, secretary, treasurer and receiver-general, auditor, eight councillors, and a legislature of 40 senators and 240 representatives. The Legislature is still frequently called "The Great and General Court."

The State House, which Dr. Holmes calls "the hub of the solar system," stands on the crest of Beacon Hill, fronting Boston Common, and is a dignified structure, dating from 1795, with interesting statues of Daniel Webster, Horace Mann, John A. Andrew, and Washington, the battle-flags of 1861–65, and the State library. For over a century a large wooden codfish has been suspended in the Hall of Representatives, typifying an industry of much value to Massachusetts, and "a greater source of wealth than all the mines of California." The Senate chamber contains valuable portraits of State dignitaries, and also battle-relics from Lexington, Bunker Hill and Bennington. The lofty dome is covered with pure gold leaf, and shines afar over scores of leagues of sea and land. An extension larger than the original building, and harmonious in architecture, was added to the State House in 1888–92.

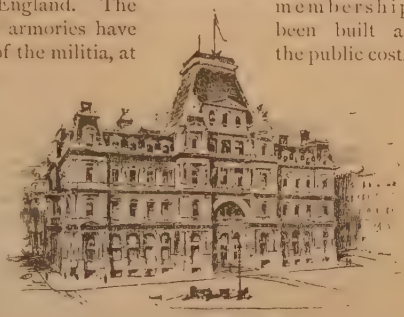
BOSTON: CITY HOSPITAL.

For two centuries Massachusetts had the most complete democratic government ever seen, each town forming a semi-independent republic, whose qualified voters (male church-members, until the restoration of the Stuarts, and after that the entire adult male population) assembled in town-meeting, levied local taxes, appropriated moneys, elected officers, and chose representatives.

The Massachusetts Volunteer Militia includes 406 officers and 4,923 enlisted men, organized in two brigades, composed of 6 regiments (67 companies) of infantry, 2 battalions (6 companies) of cadets, 2 battalions of cavalry, and 2 batteries of field artillery (12 guns and 16 Gatlings). The First Infantry is from Boston; the Second from western Massachusetts; the Fifth and Sixth from Middlesex County and Boston; the Eighth from Essex County; and the Ninth from Boston. The Naval Battalion, of four companies, includes many yachtsmen, and is in a highly efficient condition. Each brigade encamps for a week every year, on the fortified State camp-grounds at Framingham; and the Cadets encamp at Hingham and Magnolia, on the coast. This entire body of troops is kept in a state of high discipline and efficiency. It costs the State nearly $200,000 a year. The Ancient and Honorable Artillery Company, the oldest

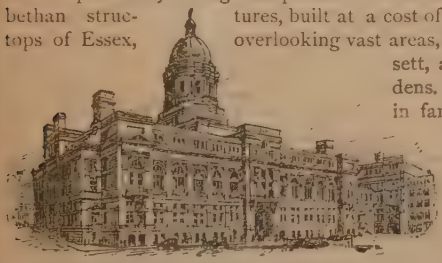
SOUTH BOSTON: PERKINS SCHOOL FOR THE BLIND.

military organization in America, has its headquarters in Faneuil Hall, Boston, and is largely composed of officers of other commands. It was organized in 1638, and for more than a century was the chief school of military art for New England. The membership numbers over 600. Expensive and elaborate armories have been built at Boston and Worcester for the accommodation of the militia, at the public cost.



BOSTON: THE POST-OFFICE.

Charities and Corrections.—The State Board of Lunacy and Charity has nine members, with Superintendents of Out-Door Poor and In-Door Poor, an Inspector of Institutions, and other officials. Upwards of 16,000 persons are in receipt of public charity. The establishments for the relief of the poor are valued at $9,000,000, one third of which pertains to city and town almshouses, and the rest to eleven State institutions. There are 6,500 insane persons, 4,000 of whom are cared for in the State Lunatic Hospitals, at Worcester, Danvers, Taunton, Northampton and Westborough, and at other State institutions and public hospitals. In the last decade the population of Massachusetts gained 26 per cent., but its insane population gained 50 per cent. The palace asylums at Danvers and Worcester are among the finest buildings in America. They represent an already obsolete system, to be replaced by cottage hospitals. The Danvers Asylum includes ten enormous Elizabethan structures, built at a cost of $1,600,000, crowning one of the finest hill-tops of Essex, overlooking vast areas, from the ocean to Monadnock and Wachusett, and surrounded with exquisite Italian gardens. There are 150 insane persons boarded out in families, in a new experiment, based on the Scottish system. A new asylum for the chronic insane is being built at Medfield. Not more than one eighth of the State's patients have a reasonable hope of recovery. The only Epileptic Hospital in America is at Baldwinsville. It was founded in 1882, by private munificence; but the State appropriated $55,000 to it in 1889, for new buildings, and received the right to send patients. Children rendered by disease profane, selfish and imbecile are here made quiet, thoughtful and conscientious.



BOSTON: SUFFOLK-COUNTY COURT-HOUSE.

The State Primary School, at Monson; the Lyman (Reform) School for Boys, at Westborough; the State Industrial School for Girls, at Lancaster; and various private charitable institutions at West Newton, Salem, Thompson's Island, and elsewhere, provide for and educate 1,400 poor, friendless, and ignorant "Children of the State," and teach them ways to earn an honest and useful living. The cost exceeds $250,000 a year. The State Farm at Bridgewater is a model institution, with hospital, prison, insane asylum and other adjuncts. It has an average of 600 inmates. The State Almshouse at Tewksbury takes care of 1,000 persons. In the charitable and reformatory institutions 70 per cent. of the people are of foreign birth, and 90 per cent. of the children in the reformatories are of foreign parentage. The local authorities say that these startling figures are based on the well-known fact that the mass of immigrants are of the class but one degree above actual want. The Superintendent of In-door Poor sends out of

BOSTON HARBOR: FORT INDEPENDENCE.

the State each year 600 persons, belonging elsewhere, and becoming charges on the charity of Massachusetts.

GLOUCESTER HARBOR.

The State Prison at Charlestown (Boston) contains above 600 chronic criminals. The Reformatory for men, at Concord (750 inmates), and the Reformatory Prison for Women, at Sherborn (250 inmates), are doing a noble work in reclaiming immature and unhardened offenders. There are also 21 county and many municipal prisons and correctional institutions, capable of holding 4,500 prisoners. Contract labor in the prisons was abolished in 1887, and all work done by convicts is for the benefit of the State. While the population of Massachusetts has increased about 82 per cent. during 30 years, its prison population has increased but 75 per cent., notwithstanding in recent years a more effective enforcement of law has relatively increased the number of sentences. The records show a marked decrease of crimes against person and property, and an increase in crimes directly connected with intemperance.

Health and Mortality.—The State Board of Health (founded in 1842) has seven members. There are about 24,000 deaths in Massachusetts yearly, one fourth of which are from consumption and acute lung diseases. One third of the deaths are of children under five. July and August are the most fatal months. The changes in temperature are apt to be sudden and severe, and the east winds of the coast are as dangerous in winter as they are agreeable in summer.

MANCHESTER-BY-THE-SEA: COOLIDGE MEMORIAL LIBRARY AND GRAND-ARMY HALL.

United-States Institutions.—The chief National building in Massachusetts is the Post-Office at Boston, a large granite structure, containing the United-States Sub-Treasury and the court-rooms. It cost $6,000,000, and is adorned with groups of colossal statuary. The Custom House at Boston is a massive and imposing structure, built in 1837–49, at a cost of $1,100,000, with walls, roof, and dome of stone. It is in the form of a Greek cross, surrounded by 32 immense fluted columns. The customs buildings at Salem, Newburyport and other coast cities are also of stone. The United-States Armory at Springfield occupies a park of 72 acres, on Armory Hill, and has a great quadrangle of buildings. During the years, 1861–65, the works ran night and day, with 3,000 operatives, making 800,000 stand of arms, at a cost of $12,000,000. In the adjacent arsenal 500,000 stand of arms can be stored, and vast quantities are always kept in readiness. The United-States Arsenal at Watertown, near Boston, was founded in 1811, and became a garrisoned post in 1816. Most of the ordnance stores used in the Mexican War were made here, and also vast quantities for the Secession War. There is an extensive plant here for making cannon and gun carriages, but since 1888 much of the machinery has been removed to other arsenals. The grounds cover 100 acres, and besides the factories, include barracks and officers' quarters. The Navy Yard at Charlestown (Boston) covers over 100 acres, with its work-shops, barracks, store-houses, ship-houses, and rope-walk. The great hammered-granite dry-dock cost $700,000. The *Frolic*, *Independence*, *Merrimac*, *Cumberland*, *Huron*, *Tallapoosa*, *Vermont*, *Boxer*, *Hartford*, *Shawonee*, and many other famous battle-ships were built here;

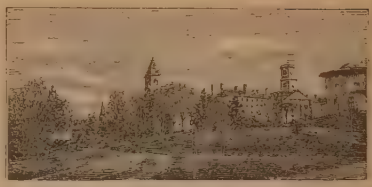
CAMBRIDGE: CITY LIBRARY.

and the *Constitution* and *Argus* came from neighboring yards. The Navy Yard dates from 1798; and when need arises it employs 2,000 men. There is a garrison of marines, a saluting battery, and a receiving ship (the *Wabash*) in the stream.

The Fortifications of the coast include the crumbling and long-abandoned defences of Newburyport, Salem, Marblehead, Plymouth and New Bedford. The port of Boston

CAMBRIDGE AND BOSTON: HARVARD UNIVERSITY.

is protected by a group of fine old fortresses, carrying 600 guns, and built on islands. Fort Independence, on the site of the Castle of colonial days, is the oldest virgin fortress in the world, having been first armed as a defence in 1634. Across the harbor rise the ponderous earthworks and lofty granite citadel of Fort Winthrop. Farther out, toward the sea, is Fort Warren, sometime famous as a prison for Confederate officers.



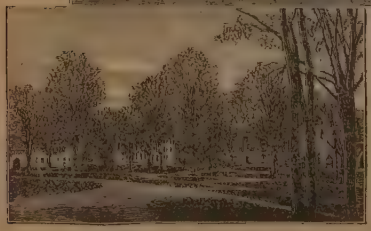
AMHERST: AMHERST COLLEGE.

The Massachusetts coast is dotted with light-houses, fog-horns, and life-saving stations, from the Plum-Island lights at Newburyport around the two capes, and on the southern islands. Conspicuous among these are the Sankoty-Head light, at Nantucket; the Highland Light, on the outer side of Cape Cod; the Minot's-Ledge Light, rising from the sea, off Boston Harbor; and the lofty twin towers of the Thatcher's-Island Lights, on Cape Ann. Boston Light dates from 1715, and was destroyed by the British fleet in 1775.

The chief station of the United-States Commission of Fish and Fisheries is at Wood's Holl, on the south coast, where there are extensive biological laboratories, fish-hatcheries and aquaria; and many eminent scientific men spend long seasons here, studying the habits of cod and mackerel, lobsters and oysters, and other dwellers in the sea.

Educational.— The public-school system is based on the ordinance of 1647: "Now, that learning may not be buried in the graves of our fathers, every township in this jurisdiction, after the Lord hath increased them to 50 householders, shall then forthwith appoint one within their town to teach all such children as shall resort to him, to write and read." These village-schools and the grammar-schools ordained for towns of 100 families were supported by taxation. And so, with frequent improvements, the public-school system has advanced mightily. Of late years, women have had (and used) the right to serve on and vote for school committees. The boys of many high-schools are subjected to military drill, under arms; and the Boston School Regiment, 1,200 strong, marching like regulars, is reviewed every year on Boston Common, by the Governor; and the Second School Regiment, 800 strong, has yearly field-days in Essex or Middlesex. Within a recent period the Catholic Church has founded many parochial schools for her children. A large proportion of the 122,000 illiterates of above ten years are Irish domestics. One third of the foreigners are illiterate, and so are one fourteenth of the natives.

The State Board of Education is charged to see that each child has a good common-school education, with training also in morals and manners. There are five normal schools, at Bridgewater (founded in 1840), Framingham (founded in 1839), Salem (1854), Westfield (1839), and Worcester (1874), and a normal art-school at Boston (1873), the total number of pupils being 1,350. The State contains 7,329 public schools, with 10,000 teachers, and a total attendance of 376,000 pupils. Since 1884 the cities and towns are obliged by law to provide all text-books and other school-supplies free of charge. The State also supports schools for the blind, for deaf-mutes, for the feeble-minded, and for juvenile offenders and truants, containing 1,500 children. There are 244 high-schools, with 814 teachers, and 26,000 pupils; and 270 evening schools, with 100 teachers and 30,000 pupils (mostly adults). The annual expenditure for the public schools is in excess of $8,500,000. There are also 511 academies and private schools, with 60,000 pupils.



WILLIAMSTOWN; WILLIAMS COLLEGE.

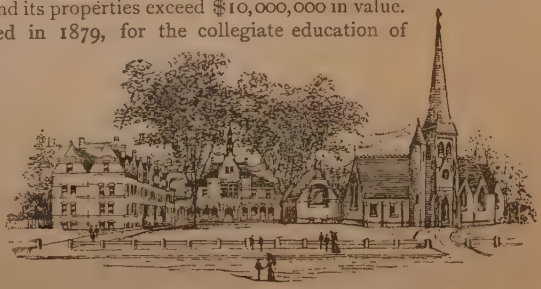
Harvard University is one of the foremost institutions of learning in the world, and has been for two and a half centuries a growing and beneficent power in American life. Its foundation was ordered by the Massachusetts legislature in

1636; and the next year Newtowne, across the Charles River from Boston, was chosen as its seat. In 1638 John Harvard, a young English pastor, died at Charlestown and bequeathed his library and £800 in money to the inchoate college, to which his name was then given, the name of Newtowne also being changed to Cambridge, in honor of the famous English university where many of the founders of New England had received their education. The little Puritan seminary of those ancient days has developed finally into the most illustrious university in America, with a roll of 14,000 graduates, including Otis and the Adamses, Hancock and Warren, Channing and Everett, Sparks and Palfrey, Cushing and Bancroft, Emerson and Holmes, Motley and Lowell, Sumner and Dana, Thoreau, Clarke and Hale, and many other eminent men. The university was established outside of the activities of the metropolis, but could be placed at no more distant point by reason of the hostile Indians. In 1775 the students, library and apparatus were sent away, and the buildings long remained barracks for the Continental troops, besieging the British army in Boston. Harvard has a number of dormitories and other buildings, some of them very old, like Massachusetts, Harvard, Hollis, Stoughton and University Halls, having a puritanical simplicity; and it has also many others with all the bravery of 19th-century architecture. The lovely quadrangle encloses green lawns and ancient trees, and rests in a perpetual air of philosophic calm. Gore Hall and its branches contain 377,000 volumes, and many rare old books and relics; and the Museum of Comparative Zoology, the Peabody Museum of American Archæology and Ethnology, and other appropriate halls contain unrivalled collections. Memorial Hall was finished in 1874, at a cost of $450,000, with a classic theatre; a grand memorial transept, bearing on arcaded marble tablets the names of 136 Harvard men who died in the war for the Union; and a great hall, generally utilized by 700 students as a dining-room. This hall has an open timber roof, rich stained windows of great size, and scores of portraits and busts of benefactors of the university; and a lofty tower, visible for many leagues. The Observatory, the Botanic Gardens, the Hemenway Gymnasium, the Divinity Hall, Austin Hall (the Law School), the Boylston Chemical Laboratory, and the Jefferson Physical Laboratory (founded mainly by Thomas Jefferson Coolidge), are well-known departments near the quadrangle. The famous Harvard Medical School, the Dental School, and the Veterinary School are in Boston; and the Bussey Institution, a school of agriculture, and the Arnold Arboretum are in West Roxbury. The university has 2,700 students, in all its departments; and its properties exceed $10,000,000 in value.

BOSTON: MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

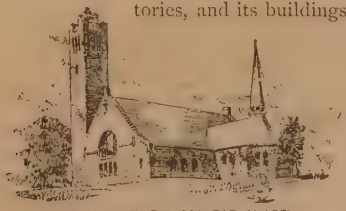
ANDOVER: THEOLOGICAL SEMINARY.

The Harvard Annex, founded in 1879, for the collegiate education of women, has no legal connection with the university, but its 40 professors are mainly those pertaining to the college. It has 130 students. The graduates receive certificates that they "have pursued a course of study equivalent in amount and quality to that for which the degree of Bachelor of Arts is conferred in Harvard College."



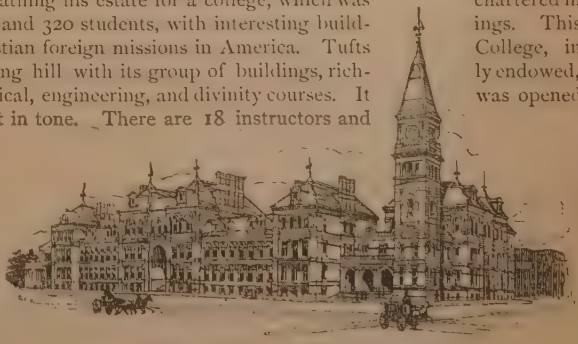
CAMBRIDGE: PROTESTANT EPISCOPAL THEOLOGICAL SCHOOL.

Boston University was founded in 1869, and has 1,100 students in its colleges of liberal arts, music, and agriculture, and schools of law, theology (Methodist), medicine (homœopathic) and all sciences. Unlike most American colleges, Boston University has no dormitories, and its buildings are used only for lectures, recitations and administration. Clark University was founded at Worcester, in 1888, for higher specialized study by college and university graduates, and has won a considerable success. Amherst College occupies a beautiful situation on a hill south of Amherst, in the romantic hill-country near the Connecticut Valley. It was founded in 1821, and is a Congregationalist institution. There are 27 instructors and 360 students, 140 of whom are from other States, with an art gallery, a library of 52,000 volumes, memorial chapel, gymnasium, observatory, and rare museums of Indian relics, Nineveh antiquities, minerals, and tracks in stone. Amherst has the finest American collection (with one exception) of casts from famous statuary. Connected with her professorship of physical education (the first in America) is a park of 26 acres, with ball and tennis grounds and walking tracks.



MEDFORD: TUFTS-COLLEGE CHAPEL.

Williams College, at Williamstown, amid the noble mountains of Berkshire, commemorates Col. Ephraim Williams, of the Eighth Massachusetts, who was killed in battle at Lake George, in 1755, after bequeathing his estate for a college, which was chartered in 1793. It has 20 instructors and 320 students, with interesting buildings. This was the birth-place of Christian foreign missions in America. Tufts College, in Medford, covers a far-viewing hill with its group of buildings, richly endowed, and with classical, philosophical, engineering, and divinity courses. It was opened in 1854, and is Universalist in tone. There are 18 instructors and 150 students. The Massachusetts Institute of Technology, in Boston, incorporated in 1861, occupies several fine buildings on the Back Bay, with museums, models, and gymnasium. It has 120 instructors and 1,000 students (including 26 women and 38 foreigners), and teaches engineering, architecture, chemistry, physics, natural history and mechanic arts, in a four-years' course. Massachusetts owns 20 free scholarships, for aid rendered from public funds. There is no more famous scientific school in America, and it draws its students from 35 States. The Massachusetts Agricultural College, at Amherst, is a State institution, founded in 1863, with 150 students in scientific farming, horticulture, forestry, and similar branches. There are 80 free State scholarships and 13 free Congressional scholarships.



BOSTON: ENGLISH HIGH AND LATIN SCHOOL.

WELLESLEY: WELLESLEY COLLEGE.

Wellesley College, 15 miles from Boston, on Lake Waban, in Wellesley, has stately buildings in a park of 300 acres. It was founded in 1870, by Henry F. Durant, and opened in 1875; and has 60 officers and 690 students (young women averaging 20 years) from all over the Union. The museums and art-gallery are of great value; and the library contains 25,000 volumes. The property of Wellesley is worth $2,000,000. Smith

College was founded in 1871, by Miss Sophia Smith, at Northampton, and has fine buildings and 500 women students. The 12-foot equatorial telescope, the four-inch meridian circle, and the 21-foot steel dome were designed and built by Warner & Swasey, of Cleveland (Ohio). Across the valley, at South Hadley, is the famous old Mount-Holyoke Seminary and College, founded in 1836, by Mary Lyon, and the school of many noble women. It commands exquisite views of the Northampton meadows and the gorge between Mount Holyoke and Mount Tom.

WELLESLEY-COLLEGE : SCHOOL OF ART.

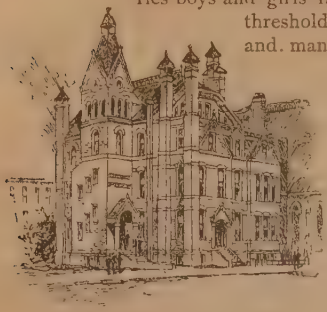
Andover Theological Institution, opened in 1808, has prepared 3,000 men for the Congregational ministry, and has nine professors and 50 students, 37 of whom are from outside of Massachusetts, with several from Japan, Turkey and India. Its recent liberal tendencies are well-known. On its elm-shaded hill stand the old dormitories; the stone Brechin Hall, with the library of 50,000 volumes; the handsome modern chapel; the house in which *Gates Ajar* was written; and the site of the old stone house where *Uncle Tom's Cabin* was written. Newton Theological Institution is a Baptist institution, founded in 1825, and nobly placed on a high hill over Newton Centre, a pleasant village eight miles from Boston, and now for many years the home of the Rev. Dr. S. F. Smith, author of the National song, *My Country, 'tis of Thee.* The Episcopal Theological School is near Harvard University, at Cambridge, and includes a beautiful quadrangle of stone buildings, with a library and an unusually attractive church. The school dates from 1867, and has five professors. The chief Catholic schools are Boston College, founded by the Jesuits in 1863, and now having 16 instructors and 200 students, and the College of the Holy Cross, on a pleasant hill-top near Worcester. The diocesan seminary for the Catholic clergy occupies a great stone building in Brighton. The New-Church (Swedenborgian) Theological School is at Cambridge. The Divinity School at Harvard University is Unitarian in tendency. The law-schools are connected with Harvard (founded in 1817), and Boston University (1869). The Medical Schools of Harvard and of Boston University, the Harvard and Boston Dental Colleges, the College of Pharmacy, and the Harvard School of Veterinary Medicine, are at Boston. The Perkins Institution and Massachusetts School for the Blind, at South Boston, was organized in 1832, by Dr. S. G. Howe. It has been studied as a model for similar institutions here and in Europe. There is a large library of raised-letter books. The State grants $36,000 a year to the school, which has 225 students. The pupils earn money by piano-tuning and upholstery.

The celebrated evangelist, Dwight L. Moody, was a native of Massachusetts; and at and near beautiful old Northfield, in the Connecticut Valley, he has founded a group of Christian schools, with 500 pupils, from every State, and Japan and Armenia. Here also is a training-school for women, in Bible-study, dress-making, and house-keeping.

The Boston English-High and Latin-School, the largest building in the world used as a free public school, was built in 1877–80, at a cost of $750,000, and is a fire-proof structure, in Renaissance architecture, with 48 school-rooms, besides museums, libraries, gymnasiums, lecture-halls, and the great drill-hall, for military evolutions and instruction. The Girls' High School is a noble building, with 800 pupils. The B. M. C. Durfee High School is a magnificent memorial building on the heights over the city of Fall River. The high schools at Worcester, Springfield and other cities have attractive buildings and collections.

Among the preparatory schools are Phillips Academy, at Andover, endowed in 1778, and widely renowned; Dummer Academy, in Newbury, founded and endowed by Gov. Dummer, in 1756; Adams Academy, at Quincy; the Highland Military Academy, near Worcester; Thayer Academy, at Braintree; Dean Academy, at Franklin; Greylock Institute, at South Williamstown; St.-Mark's School, at Southborough; the richly endowed Williston Seminary, at Easthampton; Sanderson Academy, at Ashfield; Lasell Seminary, at Auburndale; Bradford Academy, for girls; and Abbott Female Seminary, at Andover.

Chauncy-Hall School, of Boston, one of the best preparatory schools in the world, carries boys and girls from the kindergarten and primary departments to the threshold of college or business life. It was founded in 1828; and many of its pupils, like Parkman, Ellis, Tuckerman, and Weiss, have become famous. Its distinguishing characteristics are care for health and attention to individuals. Preparation for the Massachusetts Institute of Technology is a specialty. The military drill gives the lads a good setting-up, and the girls have calisthenics. The school-building, architecturally attractive and provided with all modern conveniences and safe-guards, fronts on Copley Square, close to the Art Museum, Trinity Church, the new Old South Church, and the new Public Library, in the finest residence-quarter of the city. Chauncy Hall usually has about 300 students.



BOSTON: CHAUNCY-HALL SCHOOL.

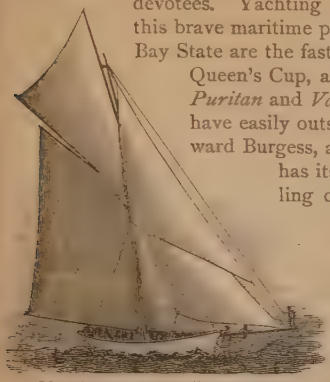
The Wesleyan Academy, one of the most notable of New-England institutions, was founded in 1818; and seven years later it moved to the pleasant old Massachusetts village of Wilbraham, where it has since remained. There are six academic buildings, on a domain of 200 acres, nestling under the hills eastward of the fair Connecticut Valley. Within these walls 16,000 students have been taught; and there are now 250, a number of them from foreign lands, and the others from all parts of the Union. The academy avails itself of the excellent and sensible methods suggested by the experience of two thirds of a century, in preparing its pupils for college, or for business life. Among the graduates of this noble old school have been Gov. Pitkin, of Colorado; Gov. Hovey, of Indiana; ex-President Beach, of Wesleyan University; President Andrews, of Brown University, and many eminent bishops and ministers, and other professional men. The faculty includes 14 teachers, with George M. Steele, D.D., LL.D., as President.

WILBRAHAM: WESLEYAN ACADEMY.

Among the most celebrated of New-England academies is Allen's West-Newton English and Classical School, nine miles west of Boston. It occupies a building of historic interest, wherein, in 1844, was conducted the first normal school in America, and the first for young women in the world. Nathaniel T. Allen became connected with it in 1848, and six years later, after the Normal School had been removed to Framingham, he opened here a private family and day school for boys and girls. This institution has prospered increasingly from that day to the present time, when it has a hundred students, and a spacious farm and industrial annex in the neighboring town of Medfield. Many famous clergymen and lawyers, professors and scientists, and a much greater number of men and women in business and other careers, have passed their early years conning lessons in this venerable academy, under the Allen Brothers, who still conduct the school. It has been one of their aims to study the characters and ancestries of their pupils, so to repress bad heredities and develop good ones. Among the thousands of young people who have felt the uplift of this school have been many Spanish-Americans; and the roster usually shows youths from a score of States and several foreign countries, finding in this pleasant Massachusetts village a noble institution for the development of mind and spirit.

WEST NEWTON:
ALLEN'S ENGLISH AND CLASSICAL SCHOOL.

Amusements are becoming more and more a feature of life in the Puritan State. The favorite athletic sport is base-ball, for whose play nearly every village has its club, while at the games played in Boston 10,000 people often gather. Cricket and lacrosse are also very well known; and tennis and croquet. Bicycling finds here its most enthusiastic and successful devotees. Yachting has been a favorite amusement for generations among this brave maritime people. The yachts built and owned on the coast of the Bay State are the fastest in the world. The *America*, which won the famous Queen's Cup, at Cowes, still sails in these waters; and the *Mayflower*, *Puritan* and *Volunteer*, the three great sloops which for successive years have easily outsailed the swiftest British yachts, were planned by Edward Burgess, a local naval architect. In theatricals, nearly every town has its hall, and the cities their opera-houses, visited by travelling companies of dramatists. The earliest Massachusetts theatre opened in 1794, in Boston. The Boston Theatre is one of the largest in the world and has seats for 3,100 persons. It was built in 1854, and has been the scene of the triumphs of Rachel, Ristori, Bernhardt, Janauschek, Parepa-Rosa, Patti, Lucca, Nilsson, Cary, Kellogg, Mary Anderson, Charlotte Cushman, the Booths, Barrett, Fechter, Forrest, Brougham, Jefferson, Boucicault, Wallack, Salvini, Irving, and many other illustrious stars. Here also have been won the greatest successes of the spectacular plays, *Michael Strogoff*, *The Exiles*, *Djalma* and *The Soudan*. The exterior is simple and inconspicuous, but the magnificent auditorium, luxurious parlors and lobbies, and grand stairway are distinguished for their fitness and beauty. The immense stage has every appliance which can aid in giving splendor, effect, and realism to its scenes. Eugene Tompkins is the proprietor and manager of this great theatre, which Boucicault said was the finest in the world. Many new play-houses have been built, but none to excel this one.



BOSTON: THE YACHT "VOLUNTEER," THE FASTEST IN THE WORLD.

BOSTON: THE BOSTON THEATRE.

Of late years the feature of club-life has developed greatly, and all sorts of interests are represented, from those served by the Greek-letter societies and literary clubs, the Congregational Club, the Unitarian Club, and others, to the athletic and sportsmen's and yacht clubs. The most exclusive organization of this kind is the famous Somerset Club, with 600 members, occupying a fine and richly furnished old mansion of white granite, with double swell front, richly draped with ivy, and facing on Boston Common. It dates from 1852. Not far distant is the house of the Union Club, frequented in past days by Everett, Andrew, Sumner, Dana, Gray, Hoar, Rice and others. The Algonquin Club was organized in 1885, and has a magnificent house on Commonwealth Avenue, finished in 1888, at a cost of $300,000. This is said to be the finest club-house in America. The Boston Athletic Association includes 1,800 gentlemen who are interested in

BOSTON: BOSTON ATHLETIC ASSOCIATION.

riding, rowing, yachting, tennis, fencing, bowling, and other manly sports. They have a magnificent club-house, built in 1888, at a cost of $300,000, with all the needful accessories, Turkish and plunge-baths, tennis-courts, and provisions for other athletic exercises.

BOSTON: SOMERSET CLUB.

Art has for over a century occupied an interesting position in Massachusetts. The extensive affiliations of its people with Europe, and the foreign travels of many gentlemen like Sumner, Ticknor, Motley, Hillard, and Norton, gave a strong impetus to the study and love of art among the educated people. Smibert and Copley painted many portraits in eastern Massachusetts, before the Revolution. Stuart at a later date portrayed the wine-tinted visages of the gentry; and then came Chester Harding, and the historical and ideal painter, Washington Allston. In later years, Wm. M. Hunt, George Fuller, George L. Brown, F. P. Vinton, and others flourished and won great fame. The Boston Athenæum opened its first public exhibition in 1826. In 1850 the Lowell-Institute school of drawing began. The chief sculptors have been Rimmer, Bartlett, Milmore, French, and Anne Whitney; although Greenough, Ball, and Harriet Hosmer were also natives of the State, working in Italy. In architecture, the foremost of American masters, H. H. Richardson, was a resident, and has left many of his finest works in Massachusetts, where also his disciples remain and labor. The Normal Art School is a powerful factor in æsthetic culture, and occupies a noble Byzantine building, in Boston. It was established in 1873, by the State, to prepare instructors for industrial drawing in the public schools, and for oil and water-color paintings and modelling in clay. Tuition is free to Massachusetts teachers, and non-residents are taught for $50 a term. The Boston Art Club was organized in 1854, by a score of professional artists, and has grown to a membership of 800 (largely of business men), having a beautiful Romanesque club-house, with large picture-galleries, parlors, library and other sumptuous rooms.

BOSTON: ALGONQUIN CLUB.

The Boston Museum of Fine Arts occupies a spacious range of Italian-Gothic buildings, on Copley Square, and contains many hundreds of valuable paintings by Regnault, Corot, Couture, Millet, Troyon, Greuze, Copley, Allston, Stuart, Constable, Turner, Reynolds, Holbein, Cranach, Van de Velde, and other famous masters. It has also great and rare collections of statuary, tapestry, pottery, coins, and mediæval furniture and armor. The museum was founded in 1870, and the present building was occupied in 1876. It is open every day. Clarence Cook says that "it is entitled to respect among the museums of the world, as it certainly stands first among the museums of our own country." The capital art-schools connected with the museum, and others in the vicinity, draw students from all parts of the country, and great benefit comes to them from the study of the statuary and paintings.

In the vicinity of Boston Common are found the chief studios, and some of the art-schools for which the city is famous. Here also is the great picture-gallery and print-shop of Doll & Richards, a firm which for many decades has been favorably known to the art-lovers and connoisseurs of New England and New York. Here may be seen every variety of fine line engravings, etchings of great delicacy and force, carbon and other photographic reproductions of the leading pictures of European galleries, and many admirable and beautiful paintings by the foremost of American and foreign artists; and other objects of art, of perennial

BOSTON: NORMAL ART SCHOOL.

interest and value. The exhibition-gallery, capitally lighted and arranged, has been the scene of many interesting displays of American art, from the cool and Corot-like Merrimac-Valley pictures of John Appleton Brown to the refined and delicate work of the local genre-painters, so widely and so greatly celebrated. Here the choice works of Charles H. Davis, Edward E. Simmons, Ross Turner, Winslow Homer, Dodge McKnight, and other masters are to be found, on exhibition and for sale. The Doll & Richards store and gallery are in the Warren Building, which was erected expressly for the accommodation of their business. It is near the State House, and fronting on the famous Park-Street Mall, of Boston Common. Doll & Richards is to Boston what Goupil is to New York, or Hazeltine to Philadelphia.

BOSTON: DOLL & RICHARDS.

The development of popular art of a high order in America owes a great deal to Louis Prang, a native and art-student of Breslau, Prussia, who came here, in 1850, as a political refugee. Six years later, the young German united with a lithographic printer to make pictures of bouquets for ladies' magazines, studying every detail of the business with earnest care. In 1860 he bought out his partner, and adopted the now famous title of L. Prang & Co.; and after the ensuing period of war-maps and generals' portraits, he went to Europe, and looked over the whole field of lithography. In 1865 he brought out the famous Bricher landscapes, followed by Eastman Johnson's "Barefoot Boy," and other triumphs of the new chromo-lithographic art, reproducing to the eye the beauty and character of the original paintings. Mr. Prang now has a large factory in the Roxbury suburb of Boston, and employs 150 skilled workmen. Branch-houses are established at New York and San Francisco, and agencies all over the world. The Prang holiday cards, the Prang valentines, the chromo-lithographs, art-studies and other exquisite art-products of this house have become famous wherever civilization exists.

BOSTON (ROXBURY): L. PRANG & CO.

The Low Art Tile Works, at Chelsea, form the most noted establishment of the kind in America. John G. Low was a pupil in the studios of Troyon and Couture, and afterwards a successful painter. Recognizing the value of plastic art in decoration, he drudged for a year in a pottery, to learn its elements; and then he and his father set up a kiln, where, after many costly and vexatious experiments in clays and mixtures and methods, full success crowned the work. The materials, Pennsylvania kaolin, Connecticut feldspar and New-Jersey clay, are ground as fine as flour and then mixed, and moistened like damp sugar, after which they are pressed into tiles, and dried for several days in the fire-brick kilns. The glaze is then applied and baked until it fuses in, forming rich olives and yellows, delicate grays and browns, and strong and pure greens and blacks. These exquisite tiles, Moorish or classic, Renaissance or Elizabethan, with flowers or portraits in high relief, are used extensively for friezes and borders, hearths and fire-places, and for artistic stoves and soda-fountains. In 1889 the business was incorporated as The Low Art Tile Co.

CHELSEA: THE LOW ART TILE CO.

The Forbes Lithograph Manufacturing Company is an outcome of art development. The works at Chelsea, a suburb of Boston, are the most complete and extensive of their kind in America, and give employment to 500 people. The main offices are in

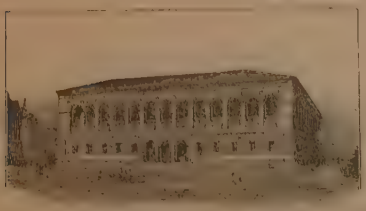
CHELSEA: FORBES LITHOGRAPH MANUFACTURING CO.

Boston, with branches in New York, Philadelphia, Baltimore, Chicago and San Francisco. The business was established in 1861, and incorporated in 1875; and manufactures largely for this country, Europe and South America. Its product embraces all branches of lithography, from exquisite engravings for banking and commercial use to fine chromo-work in many colors. Among them are the well-known Albertype reproductions of engravings and art-works, for illustrating fine books. It also manufactures very largely for mills and corporations. Fine theatrical printing is an important branch. The Forbes Co.'s latest achievement in illustration is the new process of Photo-Color work, which is a triumph of modern art.

The Public Libraries are particularly notable. Foremost stand the great Boston Public Library, 570,000 volumes; the Harvard-University libraries, 377,000; and the Boston Athenæum, 155,000. Each of the following exceeds 50,000 volumes: Amherst College, the State Library, and the libraries at New Bedford, Springfield, Worcester, and the American Antiquarian Society at Worcester. Each of these exceeds 25,000 volumes: Andover Seminary, Boston Library, Boston Society of Natural History, Haverhill, Essex Institute (Salem), Lynn, Brookline, Massachusetts Historical Society (Boston), Lowell, Lawrence, Peabody Institute, Congregational (Boston), Taunton, and Woburn. Public libraries are supported in 275 cities and towns of Massachusetts, and contain 2,500,000 books, besides which there are 2,200 religious and other libraries, with 3,600,000 books. A legislative commission is empowered to help establish free libraries in the towns not yet possessing them. Some of the handsomest stone buildings in the country are those erected in Massachusetts, by private munificence, for public libraries. Among these are the architectural gem at Woburn, the Crane Library at Quincy, the building erected at Malden by the generosity of the Hon. E. S. Converse, that given to Cambridge by Frederick H. Rindge, and the libraries at Concord, Lincoln, Newton and other localities. The quaintly beautiful Memorial Library and Grand-Army Hall at Manchester-by-the-Sea was presented to the town, in 1887, by Thomas Jefferson Coolidge. It is French in architectural feeling, adorned with Mexican onyx, Numidian marble, Tiffany stained glass, and an ancient carved screen from Morlaix.

QUINCY: CRANE LIBRARY.

The Boston Public Library, projected in 1841 and incorporated in 1852, is the largest in the world for free circulation, and includes the magnificent special collections of George Ticknor, Theodore Parker, Nathaniel Bowditch, Edward Everett and others. There are eight branch libraries in the city. The municipality grants about $120,000 a year to the library; and is now erecting for it a magnificent and spacious new stone building, in the similitude of a Roman palace, at a cost of over $2,000,000. The library issues 1,000,000 books a year for home use, and 700,000 periodicals in the reading-room. It is one of the most popular and useful institutions of the modern Athens.



BOSTON: BOSTON PUBLIC LIBRARY.

The Nevins Memorial Library at Methuen was founded in memory of the late David Nevins, a prominent merchant and manufacturer, who passed the greater part of his life at Methuen, where he died in 1881. It had been his intention to found a library during his lifetime; and this unfulfilled purpose was carried out by his widow and sons, and the Nevins

METHUEN: NEVINS MEMORIAL LIBRARY.

Memorial Library arose, on the site chosen and purchased for that use, years before. The building was planned, and its construction supervised, by the well-known architect, Samuel J. F. Thayer, of Boston, and the complete structure was opened to the public in 1884. It contains an ample and beautiful public hall, a library of 10,000 volumes, reading-room, waiting-room, and librarian's and trustees' apartments. The building is a handsome Romanesque edifice, with some very interesting architectural features. It is the purpose of the founders to endow the institution with enough money to make it entirely self-supporting. In its noble public libraries, Massachusetts leads all the States.

The New-England Conservatory of Music in Boston is the largest school of music and associated arts in the world, having 80 instructors, and 2,200 students. The late Dr. Eben Tourjée introduced the Conservatory system (since so widely copied) to America, in 1853, and established this school in 1867. It was incorporated and placed under the control of a board of 50 trustees in 1870; and in 1882 the immense and handsome St.-James-Hotel building, on Franklin Square, was purchased for its use. Its spacious halls include the offices, instruction-rooms, reception-rooms, library, museum, and concert-room, and home accommodations for 400 lady-pupils. The Conservatory embraces five departments: 1, music, embracing all branches of technical and theoretical study; 2, piano and organ tuning; 3, general literature and languages; 4, elocution and physical culture, and the College of Oratory; 5, Fine Arts. The musical instruction of the College of Music of Boston University is also given here. Pupils come hither from all parts of the United States, and from many other countries, and enjoy not only the best possible facilities for study, but a large list of free collateral advantages, and all the safeguards and comforts of a Christian home. The faculty includes many of the most learned and prominent artists and teachers in this country, and neither money nor effort is spared to make the institution worthy in the highest degree of public confidence and patronage. The trustees and officers include a number of the best-known and most influential and respected business men and clergymen of Boston. The fact that the Conservatory has achieved its eminent success without any endowment or other aid, makes it unique among educational institutions. Relieved of indebtedness, and in the possession of the endowment of which its success and great usefulness have made it worthy, the Conservatory will prove a yet greater honor to Boston and a blessing to the world.

BOSTON: NEW-ENGLAND CONSERVATORY OF MUSIC.

BOSTON: BOSTON ART CLUB.

Memorials. — The uncounted myriads who have passed from the old Bay State into the unknown land beyond the grave are honored by many a beautiful cemetery, unsurpassed in the world. Among these are Mount Auburn, at Cambridge, the last resting-place of Longfellow, Agassiz and Sumner, and many other illustrious men; Forest Hills and Mount Hope, also

WILLIAMSTOWN: MONUMENT WHERE THE FOREIGN-MISSION MOVEMENT STARTED.

near Boston; Woodlawn, at Chelsea; the Newton Cemetery; Harmony Grove, at Salem; Pine Grove, at Lynn; Oak Hill, at Newburyport; Oak Grove, at Springfield; and many others. In the Sleepy-Hollow burying-ground, at Concord, are the graves of Hawthorne, Emerson and Thoreau. Each village has its God's Acre, oftentimes with quaint monuments two centuries old. And on the 30th of May of every year the old soldiers of the Grand Army, and grateful friends and kinsmen, heap high with flowers the graves of the men who died in battle.

As becomes a community at once wealthy and public-spirited, ancient and highly educated, Massachusetts has many fine monuments and memorials within her borders. Besides the grand works of art at Plymouth and Duxbury, and the costly soldiers' monuments in nearly every town, and the Washington statues, there is the statue of Gov. John A. Andrew, at Hingham; of Josiah Bartlett, a signer of the Declaration of Independence, at Amesbury; of the Minute-Man, at Concord; and of Sumner and Everett, Garrison and Hamilton, and other celebrities, at Boston. Interesting antiquities abound in various towns, like the Old Corner Bookstore, in Boston, for years the favorite resort of Longfellow and Lowell, Holmes and Emerson, and often visited by Dickens and Thackeray; the old Wayside Inn, in Sudbury, the scene of Longfellow's famous poem: the Cradock mansion, at Medford, built in 1634; the Old Manse, at Concord; the Pilgrim houses, at Plymouth; the Hingham church (1681); the First Church, in Salem, built in 1634; the birthplaces and tombs of the Presidents Adams, in Quincy; the old Witch house, and Hawthorne's birthplace, in Salem; the birthplace of Garrison and the grave of Whitefield, at Newburyport. The preservation of many similar objects is not left to haphazard, but will inhere in a body of trustees chosen from persons interested in historic relics and scenic beauty, and qualified to act as guardians for the people, of such properties and domains.

NORTH EASTON: TOWN HALL.

Maritime Commerce was one of the main developing features of Massachusetts, and began with the very foundation of the colony, whose vessels used to cruise to Virginia, Fayal, and other distant ports. After the Revolution, the great Salem trade with the East Indies came into existence, and was carried forward by many sagacious merchants and daring navigators. Sumatra and the Philippines, Madagascar and Zanzibar, Calcutta and the Chinese ports, alike welcomed and enriched the Essex mariners. The exportations of granite and ice afforded occupation for many vessels; and large fleets of whaling ships sailed from the home ports of New Bedford and Nantucket. The clippers built at Medford, Newburyport, and East Boston were the fastest ships afloat, and fitted up in the most elaborate manner. One of them made the run from San Francisco to Boston, around the Horn, in 75 days; another went from San Francisco to Cork in 93 days. There were no better ships in the world than those built in and sailing from Massachusetts ports between 1840 and 1860, and they won no small share of the world's freighting. Two causes combined to practically annihilate this business, the extension of steam navigation, and the ravages of Confederate privateers. And to these may be added the suspension of ship-building, caused by eccentric legislation at Washington. Less than one fifth of the exports and imports of Massachusetts is carried in American bottoms. But there are many vessels in the coasting trade;

HOLYOKE: CITY HALL.

WORCESTER: Y. M. C. A.

and Massachusetts has a tonnage of 526,200, coming next after New York and Maine.

The Fisheries employ more than half the fishing-vessels and tonnage in the United States, the daring mariners of Gloucester, Provincetown, and other ports following the deep-sea fisheries around Newfoundland and Labrador, the Bay of Chaleur and George's Bank, and returning with abundant fares of cod, halibut and mackerel. There are also lucrative shore-fisheries, including hake and haddock, pollock and blue-fish, and the valuable shell-fish of the harbors. The Massachusetts fisheries employ 1,000 sail and 20,000 men, and support 100,000 persons. Much of the old-time maritime spirit still lingers along the Massachusetts coast, waiting for the renascence of American commerce. The shipping trade of Boston is second only to that of New York, its annual imports passing $60,000,000, with nearly an equal amount of exports. In a single year 230,000 tons of American vessels enter, and over 1,000,000 tons of foreign ships; and nearly 9,000 coastwise vessels arrive in the various sea-ports of the old Bay State.

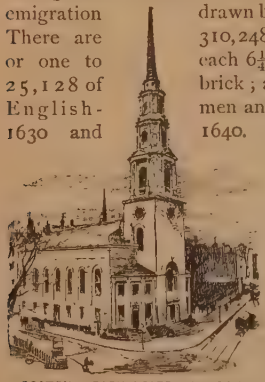
Population.—Three fourths of the people are American-born; one eighth, Irish-born; and one ninth born in Canada or Great Britain. There are 25,000 Germans, 10,000 Swedes, 5,000 Italians, 3,000 Frenchmen (and 70,000 French Canadians), and 5,000 Azoreans (Portuguese). The colored people include 400 Indians, 500 Chinamen, 12,000 negroes and 6,000 mulattoes. There are also groups of Mexicans and South-Americans, Japanese and Sandwich-Islanders, Turks and Greeks. Boston has among its inhabitants, American-born, 260,000; Irish, 70,000; Canadian, 35,000; German, 10,000; and Italian, 3,000. Of the people, 1,200,000 were born in Massachusetts, 80,000 in Maine, 60,000 in New Hampshire, 35,000 in Vermont, 25,000 in Rhode Island, 25,000 in Connecticut, 45,000 in New York, 4,000 in New Jersey, and 6,000 in Pennsylvania. On the other hand, the State has given 40,000 to New York, about 20,000 each to Rhode Island, New Hampshire, Connecticut, and Illinois; 10,000 each to California, Maine, Iowa, Michigan, Ohio, Pennsylvania, Vermont, and Wisconsin; and about 5,000 each to New Jersey, Missouri, Minnesota, Kansas, and Colorado.

FALL RIVER: B. M. C. DURFEE HIGH SCHOOL.

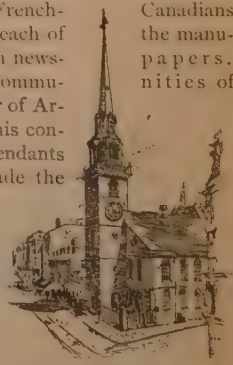
The making of boots and shoes occupies 62,000 persons; cotton goods, 58,000; building, 50,000; metal-working, 30,000; clothing, 33,000; and machinery, 16,000. Over two fifths of the population are engaged in remunerative industries, including two thirds of the men and one fifth of the women. One fourth of this great army of workers is in the textile industries. There are 425,000 families in the State, with an average of 4½ persons to each. Every fifth person is a voter. The density of population, or number of inhabitants to the square mile, exceeds that of any other State except Rhode Island. It is greater than that of Austria, France, Germany, or Spain; almost identical with that of Italy and Japan; and only exceeded by Belgium, Great Britain, the Netherlands, and India. The discrepancy of men to women is accounted for by the deaths of many thousand soldiers; the disasters yearly devastating the fishing-fleets; and the continuous drain of emigration to the far West, where men naturally take the initiative. The gain of population between 1865 and 1875 was 384,881,

BOSTON: UNITARIAN BUILDING.

while between 1875 and 1885 it was 290,229, a decrease of relative gain attributable to the necessary slackening of growth as a State becomes more fully populated, and also to the extra immigration caused by the new speculative enterprises in the 1865-75 period, and to the emigration drawn by the development of the South and West in the 1875-85 period. There are 310,248 occupied dwelling-houses (and 14,580 unoccupied) in the State, or one to each $6\frac{1}{4}$ persons or $1\frac{1}{3}$ families. Of these houses 297,958 are of wood; 25,128 of brick; and 648 of stone. The original stock of the population was 20,000 English-men and Englishwomen, who settled in Massachusetts mainly between 1630 and 1640. After the Civil War and the rise of the Commonwealth, it became possible for men loving liberty in religious and political affairs to dwell happily in England, and the tide of emigration ceased flowing to New England. Then for a century and a half the isolated English colonists were left to their own devices, and increased rapidly, preserving the purity of their race, and intensifying the ideas of civil and religious liberty which had been brought over the lonely Western seas, and handed down as precious heirlooms for future generations. During the present century successive waves of immigration have poured into Massachusetts, the first being the great Irish inflowing, chiefly of the laboring classes, hard-working and versatile, and good Catholics, withal. Next came the French-Canadians from the St.-Lawrence Valley, thousands of whom have settled in each of the manufacturing cities, with their societies, Catholic churches, and French newspapers. The coast-cities, Provincetown, New Bedford, and Boston, contain communities of Azore-Islanders, skilful in the fisheries. Recently a notable number of Armenians and Moors have been added to the population. Amid this conjunction of nationalities, there is very little fusion, and the descendants of the Puritans retain their intense Englishry; the Irishmen parade the streets on St. Patrick's day, jocund with green decorations; the Italians have their own banks and restaurants; the Germans, their Liedertafel, Turnerbund and *Zeitung;* the French, their *Trois Frères* and *Abbés;* the Russians their synagogues and sacred days. There is but little mixing, yet general good temper and fraternity prevails between all classes and races, in spite of the pernicious and pestilent vaporings of a few religious and political fanatics.

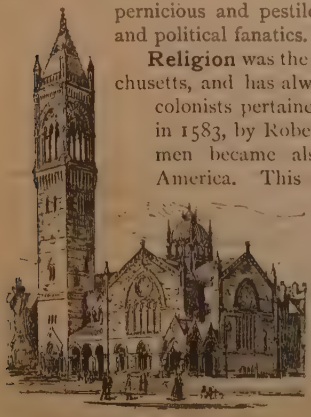


BOSTON: PARK-STREET CHURCH.



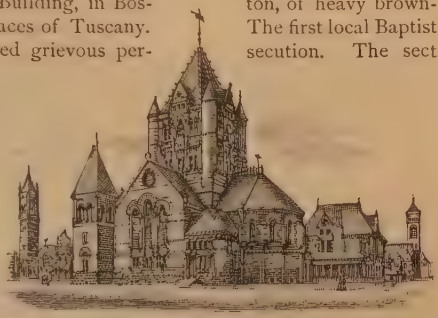
BOSTON: OLD SOUTH MEETING HOUSE.

Religion was the cause of the founding of Massachusetts, and has always been an important factor in its life. The Plymouth colonists pertained to the Congregational church, established in England in 1583, by Robert Brown; and the Salem and Boston evangelical Churchmen became also Congregationalists almost as soon as they reached America. This sect now has in Massachusetts 540 societies, with 700 ministers, 100,000 church-members, and 115,000 Sunday-School pupils. The New Old South Church, in Boston, is a magnificent North-Italian-Gothic edifice, with a stone campanile 248 feet high, and rich carvings, stone mosaics, Venetian mosaics, stained windows, and rare marbles. It was built in 1874–5, at a cost of $500,000. The society dates from 1669. The Unitarian church came out from Congregationalism between 1805 and 1815, after half a century of Arminian controversies, taking with it the venerable First and Second Churches

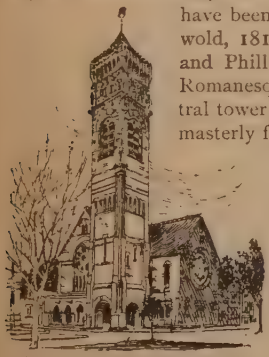


BOSTON: NEW OLD SOUTH CHURCH.

of Boston, and many other ancient societies. The flower of Massachusetts culture entered the new liberal movement, including Channing, Parker, Freeman Clarke, Palfrey, Everett, Emerson, Peabody, Pierpont, Starr King, Lowell, Longfellow, and Holmes. The headquarters of the sect is the noble Unitarian Building, in Boston, of heavy brownstone, and resembling the fortress-like palaces of Tuscany. The first local Baptist church was organized in 1662, and suffered grievous persecution. The sect has now over 300 churches, 60,000 communicants, and 65,000 Sunday-School pupils. Its finest church is on Commonwealth Avenue, Boston, with a noble campanile enriched by sculptures by Bartholdy. The Methodist movement here began in 1791, when Jesse Lee founded the first church, at Lynn; and now numbers 500 churches, with 60,000 members. The Episcopalians gathered at King's Chapel, Boston, in 1688. Though sadly depleted by the Revolutionary War, the Church has of late years grown rapidly, and has 110 parishes and 68 missions, 180 clergymen, 26,000 communicants, and 18,000 Sunday-School pupils. The Bishops of Massachusetts have been Edward Bass, 1797–1803; Samuel Parker, 1804; A. V. Griswold, 1811–43; Manton Eastburn, 1843–72; B. H. Paddock, 1873–91; and Phillips Brooks. Trinity Church, in Boston, has a vast French Romanesque edifice, the finest Protestant church in America, with a central tower 211 feet high, picturesque cloisters, and an interior enriched by masterly frescoes and storied windows. St. Michael's, at Marblehead, was built before the Revolution. St. Paul's, at Newburyport, received its communion service from Queen Anne of England. Grace, at Newton; St. Paul, at Stockbridge; Christ, at Springfield; and St. Stephen, at Lynn; are handsome stone churches. St. John the Evangelist (Cowley Fathers) and the Church of the Advent, in Boston, are ritualistic. Christ Church, in Boston, dates from 1723, and has a chime of ancient bells in its tower, where the lanterns were hung out, in 1775, which signalled Paul Revere to alarm the minute-men.



BOSTON: TRINITY CHURCH.



BOSTON: FIRST BAPTIST CHURCH.

The first Catholic church in the State was organized in 1790, and the Episcopal See of Boston dates from 1808, when it embraced all New England. In 1875 the Archdiocese of Boston was founded, to include Essex, Middlesex, Suffolk, Norfolk, and Plymouth counties. Massachusetts has 150 Catholic churches, 471 priests, 63 parochial schools, and 44 convents. The Cathedral of the Holy Cross, in Boston, in Early English Gothic architecture, 364 feet long, is one of the largest in the world, with rich windows and altars, and a vaulted oaken roof 95 feet high, on lines of clustered bronze columns. The Catholic churches are generally very large and very plain, and used by several congregations at different hours.

BOSTON: CATHEDRAL OF THE HOLY CROSS.

Universalism was established here in 1773, by John Murray, of England, who became pastor of the society at Gloucester. Its headquarters and publishing-house are in Boston; and the chief society is that of Dr. A. A. Miner, which was founded by the famous Hosea Ballou, its pastor from 1817 to

1852. Massachusetts has a few societies of the New Church, and of Disciples, Presbyterians, Friends and other sects. The ancient Armenian Church is also represented.

CAMBRIDGE: HASTINGS HALL, HARVARD COLLEGE.

The Hebrews are a well-to-do and influential people, and have eight synagogues and 20,000 people in Boston alone, with Chewras, Schwestern, and lodges of B'nai B'rith and Kesher Shel Barsel, and various Israelitish institutions. The most interesting of these is the Marcus Orthodox Synagogue, the only place of worship in Boston where religious services are held thrice every day in the year; and probably also the only one in which contributions are never taken. The building was formerly a Baptist church, and about the year 1880 was bought by Alfred A. and Kate Marcus, and their daughter and son, who have since maintained the ancient ceremonials of the Jewish church here, at their own expense. The interior is fitted up with an Oriental richness which contrasts strangely with the simplicity of the exterior. The holy ark is of mahogany, and two carved lions support the Ten Commandments. The interior of the ark contains ten rows of the holy scrolls of the Law, a hundred years old. One was sent by the late Sir Moses Montefiore, and others came from Jerusalem and other parts of the world. They are ornamented with satin cord, breast-plates and bells of silver and gold.

BOSTON: MARCUS ORTHODOX SYNAGOGUE.

The First Spiritual Temple, on the Back Bay, Boston, is the richest and costliest building used by Spiritualists in the world. It is a great Romanesque structure, of delicately carved stone, and cost $250,000. There are thousands of Spiritualists in Boston, Lynn, and other cities.

Shaker communities are found in the rural counties, but are declining in numbers.

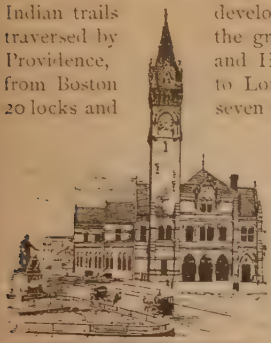
Humane sentiments are carefully inculcated by several active societies, with vigilant officials, publications, Bands of Mercy, and other energetic agencies. One of the eccentric phases of this kindly work is the Ellen M. Gifford Sheltering Home for Animals, a large estate at Brighton, where several hundred homeless and maimed dogs and cats are taken in yearly, to be furnished with homes or mercifully killed.

HOOSAC MOUNTAIN: HOOSAC TUNNEL.

The Boston Young Men's Christian Union, instituted in 1851, numbers 5,000 members, and has an admirable building in the central part of the city, near the Common. Its rooms are a home for young men, with amusements, library, museum, gymnasium, lectures and concerts, music and theatricals, and courses of study. The building is one of the most perfect of its kind ever erected. The Young Women's Christian Association of Boston has a large and handsome building, with hall, library, gymnasium, restaurant, and dormitories; and furnishes for girls temporary shelter and permanent board, industrial teaching, and an employment bureau, and amusements. It is a philanthropy, but not a charity. The Young Men's Christian Association of Boston has a noble Scotch-baronial building; and the Associations

of the minor cities and towns are full of zeal and activity. Similar interests are served by numerous Young Men's Catholic Associations and Young Men's Hebrew Associations.

In Railroads Massachusetts has more miles in proportion to her area than any other State, the lines crossing the country in every direction. Her tracks cost above $70,000 a mile. This was one of the first American communities to build railways. The old Indian trails developed into bridle-paths, and these into the turnpikes, which were traversed by the great six-horse stages from Boston to Newburyport, Worcester, Providence, and Hartford. In 1804 came the opening of the Middlesex Canal, from Boston to Lowell, 27 miles long, 30 feet wide and four feet deep, with 20 locks and seven aqueducts, and built at a cost of $575,000. The Blackstone Canal, 40 miles long, was opened from Worcester to Providence, in 1825. Two years later, the Granite Railway ran a three-mile line from the Quincy quarries to tide-water, the first railway in America. It was operated by horse-power, the first business being the transportation of stone for Bunker-Hill Monument. The State authorities surveyed the Boston & Lowell route in 1829, and its building began in 1830. By 1835 Massachusetts had 100 miles of railroad in operation. Although the toll per mile on passenger-travel is larger in other sections, her railroads pay larger dividends than those of the Middle, Southern or Western States.



BOSTON: PROVIDENCE STATION. PROVIDENCE LINE TO NEW YORK.

Some of the finest buildings are the railway stations, such as those at Worcester and Springfield, and the rural stations at North Easton, West Medford, and other points. The Boston terminal station of the Lowell System of the Boston & Maine Railroad, built in 1871, is one of the largest in America. The terminal station of the Providence Division of the Old-Colony Railroad is one of the most commodious and beautiful in the world. It cost above $800,000. The architecture is Gothic, with a great central hall of noble proportions and decoration, and a clock-tower of unusual grace. This is the Boston terminal of the well-known Providence and Stonington lines, to New York. The chief feat in railroad construction in Massachusetts is the Hoosac Tunnel, cut through the Hoosac Mountain for 4¾ miles, at a cost of $16,000,000, to shorten the route from Boston to the West. This stupendous work of engineering took 20 years for its construction, and was opened in 1874. The cost was borne by the State.

BOSTON: KING'S CHAPEL.

The street railways are 46 in number, with 620 miles of track, and an aggregate capital stock of $12,300,000, and gross debts of $8,500,000. They carry above 150,000,000 passengers yearly.

The great railway routes are the Old-Colony, covering the south-eastern counties and Cape Cod with its lines; the New-York and New-England: the Boston & Albany, for New York and the West; the Fitchburg, or Hoosac-Tunnel Route; and the Boston & Maine, a consolidation of all the lines in the northeast, covering the routes to New Hampshire, Maine and Canada. The New York & New-England Railroad is a first-class road in every respect, and passes through some of the largest cities and towns in Massachusetts, Rhode Island, Connecticut and New York, Boston, Providence, Worcester, Springfield, Hartford, New Britain, Waterbury, Danbury, Norwich, New London, Putnam, Willimantic, Manchester, Rockville, Fishkill-on-Hudson, Newburgh and

BOSTON: NEW-YORK & NEW-ENGLAND RAILROAD STATION.

New York. It runs through trains, with parlor-cars, sleeping-cars, coaches and dining-cars, which are unsurpassed in elegance. This is the shortest line between Boston and New York, being only 213 miles by the Air Line Route; and trains make the run in six hours. Through Pullman sleeping-cars are carried on trains between Boston, Philadelphia, Baltimore and Washington, passing by the steamer *Maryland* around New-York City, and thence by the Pennsylvania Railroad. This line runs the old and reliable Norwich Line, between Boston and New York, by a steamboat express-train between Boston and New London, and the elegant steamers *City of Worcester*, *City of Boston* and *City of New York*, between New London and New York. These steamers are perfectly appointed for speed, comfort and safety. Frequent trains are run between Boston and Providence. The main line extends 228 miles, from Boston to Newburgh, on the Hudson River, there connecting with the Erie Road, and making a through line to all points West.

BOSTON: NEW-ENGLAND MUTUAL LIFE-INSURANCE COMPANY.

The ancient canals between Lowell and Boston (Middlesex), and elsewhere have long since been abandoned and closed. The Cape-Cod Canal is designed to connect Massachusetts Bay and Buzzards Bay, by the way of Herring River, to save the long and perilous rounding of Cape Cod. It was begun in 1880, and advances but slowly.

BOSTON: MUTUAL LIFE-INSURANCE CO. OF N. Y.

Steamships and packets connect Boston with all points on the eastern sea-board, and with New York, Philadelphia, Norfolk, Baltimore, Savannah, and Liverpool. The well-known Boston & Bangor Steamship line runs its fine vessels from this port to Portland, Rockland, Bangor, Bar Harbor, Mount Desert, and other points on the coast of Maine.

Life-Insurance in America began in Boston, with Prof. Wigglesworth's tables of American life, and the annuity plans of the Massachusetts General Hospital. The Massachusetts Hospital Life-Insurance Company dates from 1818, but now deals only with trusts and annuities. The second company in the State was the New-England Mutual Life-Insurance Company, chartered in 1835, and now one of the leading corporations of the Republic. The New-England policies are plain and simple, with liberal terms of residence, travel and occupation, so that the insurer remains unhampered. In 1874 the company erected a fire-proof granite building on Post-Office Square, Boston. The New-England Mutual is not only the oldest, but it is also one of the strongest corporations of the kind in the United States. Its assets are in the vicinity of $22,000,000, and the yearly income reaches $3,500,000. The president, Benjamin F. Stevens, has been connected with the company for 45 years, being the longest term of service of any American life-insurance officer. The vice-president has been with the company for 42 years. No insurance company in the world has a better record for able management and equitable settlement of claims.

BOSTON: EQUITABLE LIFE ASSURANCE SOCIETY OF N. Y.

The thrifty Massachusetts people take much interest in life-insurance. Two of the most magnificent buildings in Boston are the vast fire-proof stone palaces of the Equitable Assurance Society and the Mutual Life-Insurance Company (both of New York).

BOSTON: THE BOSTON HERALD.

The Newspapers and Periodicals of Massachusetts number more than 600. Their precursors were *Publick Occurrences*, of which a single number appeared in 1690, and *The Boston News-Letter*, founded in 1704, and published for 72 years, or until the British evacuated the town. The *Massachusetts Spy*, started in 1770, was carried to Worcester when Boston became a British garrison, and is still published there. Massachusetts has 55 daily newspapers, of which eight are in Boston.

Among the few great newspapers in the country one of the Boston papers takes prominent place. Any history of journalistic enterprises in the United States would be incomplete unless it included the history of *The Boston Herald*. Depending, as the *Herald* always has, on its excellence as a newspaper for its standing, its great circulation has been obtained by the slow growth of years, and to-day it has a constituency that the combined efforts of all the other papers in New England cannot shake. The *Herald* occupies one of the most prominent buildings in the city, equipped with every device for facilitating its tremendous business. Mechanically it is the best-furnished of any newspaper in Boston, possessing two huge quadruple Hoe presses, a double Hoe press and a single Hoe press, able to flood the streets of Boston with *Heralds* at ten minutes' notice. In addition to its superb Washington-street office, the *Herald* maintains in another part of the city another office, furnished with Bullock perfecting presses, stereotype machinery and a full outfit of type. This office is ready for use at a moment's notice, it being simply a question of moving the men from the present office to the sub-office. So far as is known, the *Herald* is the only newspaper in the country that maintains an establishment of this sort in idleness, awaiting an emergency that might require its use. In politics the *Herald* is independent, commenting with unprejudiced fairness on the actions of both political parties, commending the good in each and condemning the wrong. This attitude of itself gives the paper a tremendous influence, as its readers feel that its editorial comments on public questions are entirely unprejudiced. In matters of newspaper enterprise it is a proverb in Boston that the *Herald* always leads.

BOSTON: YOUNG MEN'S CHRISTIAN ASSOCIATION.

Boston has the honor of publishing the paper which has a larger circulation than any other weekly paper in the world. This journal, *The Youth's Companion*, has long since become a favorite in nearly half a million families to which it makes its weekly visits. The *Companion* was founded in 1827, by Nathaniel Willis, who continued to be its publisher until 1859, when it passed into the hands of Perry Mason & Company, its present publishers. It had from the very beginning a high aim, and though winning its way slowly at first, it has grown to enormous proportions, and now is received in nearly every city, town and hamlet in the United States. It is interesting to know that over 30 tons of paper are needed to print each issue. This national success has not been secured through the success of any one year, but through the strict adherence to the policy originally laid down by its publisher, to give the subscribers all that could be afforded. The paper's success has been such that it is enabled to secure the literary services of the most famous writers in the world. Each volume contains 700 pages, and over 500 illustrations. The

BOSTON: YOUTH'S COMPANION BUILDING.

staff of editors numbers 24; and a large number of artists and engravers are continually at work upon the illustrations; while more than 200 people are required to print, fold, mail, and attend to other details. The new home of the *Companion*, in process of erection, on Columbus Avenue, besides being fully equipped for the publishing business, is one of the grandest buildings in Boston.

SPRINGFIELD: "FARM AND HOME." PHELPS PUBLISHING CO.

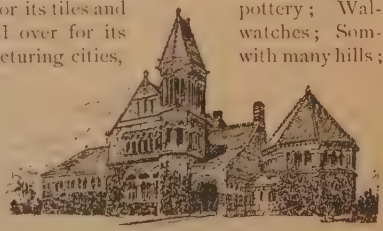
One of the most interesting and remarkable successes has been that of the Phelps Publishing Company, of Springfield. The foundation of this business was the paper called *The New-England Homestead*, established in 1867 by Henry M. Burt, and bought in 1878 by Edward H. Phelps. This has advanced from a circulation of 1,500 to above 32,000. *The Springfield Homestead*, a news and society paper, was founded in 1878, and has reached a circulation of 7,000. But the great publication of the Phelps Company is *Farm and Home*, a fortnightly paper, founded in 1880, and now issuing 250,000 copies of each number, circulating in every State and Territory. In the ten years between 1880 and 1890, the three publications of this company rose from an aggregate circulation of 9,500 to 289,000. The offices are in a commodious building owned by the company, and fully equipped with modern printing and binding and mailing outfits. The Phelps publications have great constituencies all over America, for although originally planned mainly for New-England subscribers, their unusual excellence has won for them a continental fame and favor. In a corresponding degree, to meet the demands of this broader field, the plan and scope of *Farm and Home* have been enlarged and enriched on all sides.

Chief Cities.—Boston, the capital of Massachusetts and the metropolis of New England, is picturesquely placed on an island-strewn harbor at the head of Massachusetts Bay. It stands in the midst of suburbs of unusual beauty, in a pleasant undulating country dotted with woodlands and limpid lakelets, and lighted by the shining curves of the Charles, Neponset and Mystic Rivers. The city has a costly Post-Office, a gray old classic Custom House, the new Court House of Suffolk County, the golden-domed State House, the new Exchange and Chamber of Commerce buildings, and many other noble and interesting structures. The hilly North End, the site of the ancient Boston, is now densely populated by the poor, including thousands of Italians, Azore-Islanders and Russians; the South End, nearly all reclaimed from the harbor, is given up to residence-streets; and the Back Bay, also on ground made by filling in the harbor, is the fashionable locality, with the great churches, museums and educational institutions. Outside the densely populated region, a belt of parks and parkways surrounds the city, on its landward sides. Boston has a large commerce and many manufactures, and other attributes of a first-class American city; but her chief distinctions are in her literary culture and historic interest. Nearly all the great literary men of America have dwelt in or near the Puritan City. Longfellow and Lowell, Whittier and Emerson, Hawthorne and Holmes, Thoreau and Parkman, Motley and Prescott, all of them natives of Massachusetts, dwelt in or near Boston. Howells has written his best works here, and Aldrich his brightest poems. The golden age of American literature found its consummate flowering at Boston between 1850 and 1880. The famous publishing house conducted by Wm. D. Ticknor and James T. Fields brought out the great works of Longfellow and Whittier, Lowell and Holmes, and the other leaders in modern letters. These inimitable lines of books are now published here by Houghton, Mifflin & Co., the publishers also of the *Atlantic Monthly*; and Ticknor & Co. (headed by Benjamin H. Ticknor, a son of the founder of Ticknor & Fields) own *The American Architect*, the most authoritative, influential and beautiful architectural journal in the world. At Cambridge are the Riverside Press and the University Press, for many years famous for their vast production of fine books.

CAMBRIDGE : RINDGE MANUAL TRAINING SCHOOL.

Among the historic buildings now cherished with pious care by the Bostonians are the Old State House, Faneuil Hall, King's Chapel, the Old South Church, and Christ Church. The Massachusetts Historical Society is the oldest in the Union, having been founded in 1791. The New-England Historic Genealogical Society also has a commodious building in Boston, with a large library. The first Masonic lodge in America was founded here in 1733. Boston Common, with its lawns and ancient trees, nearly in the centre of the city, is crossed by many well-trodden paths, and partly occupied by a parade-ground, the scene of frequent military ceremonials. From the contiguous Public Garden the magnificent Commonwealth Avenue stretches away toward the Brookline hills. The historic and literary interest abiding here, the number and fame of its colleges, and the accessibility of its great libraries and art-collections have made Boston (and Cambridge) one of the chief educational centres of the world, and one of the most charming places of residence.

Cambridge, separated from Boston by the Charles River, enjoys a world-wide fame as the seat of Harvard University. It has been much adorned by the noble buildings of the City Hall, Manual Training School, and Library, lately presented to it by Frederick H. Rindge. Other important suburbs are Woburn (13,499 inhabitants), abounding in tanneries; Chelsea (27,909), close to Boston and the sea, and famous for its tiles and pottery; Waltham (18,707), on the Charles, known the world over for its watches; Somerville and Malden (23,031), suburban and manufacturing cities, with many hills; Quincy (16,723), with its granite-quarries, and the homes and graves of the Adams family; Newton (24,379), with the homes of Boston business men, in a lovely region of hills and forests, ponds and streams; and Brookline (12,103), one of the most beautiful suburbs in the world. These ancient and historic environs have a great diversity of scenery, the sea-veined salt-marshes toward Lynn, the meadows of the Charles and Neponset, and the rocky-cliffs of Nahant.



WOBURN : PUBLIC LIBRARY.

The cities of the Essex coast are Lynn, with 12,000 persons engaged in shoe-manufacturing; Peabody (10,158), which has dozens of leather factories; Gloucester (24,651 inhabitants), the foremost cod and mackerel fishing-port in the world, on a noble harbor near the rocky tip of Cape Ann, which abounds in granite-quarries; Salem (30,801), the mother-city of Massachusetts, and the birth-place of Hawthorne, famous for its libraries and museums, and legend-haunted streets; and Newburyport (13,947), an ancient sea-city on high ground near the mouth of the Merrimac River, with great shipyards (now silent), the beautiful High Street, and many quaint old colonial mansions. Near by is the first chain-bridge built in America; the late Ben: Perley Poore's estate of Indian Hill, "the Abbotsford of New England"; Dummer Academy, founded by Lieut.-Gov. Dummer in 1756; the 17th-century Garrison House, near Oldtown Green; and the weird sand-dunes of Plum Island, fronting the sea for three leagues. Marblehead is a quaint old maritime town, close to the open sea, and latterly a famous resort for the yachting squadrons.

FITCHBURG : WALLACE LIBRARY.

Lowell, the Spindle City, uses the great water-power of Pawtucket Falls, on the Merrimac River, and runs a million spindles in its enormous cotton-mills, making 145,000 miles of cotton-cloth yearly, besides having many other factories, employing 27,000 operatives in all.

Lawrence, farther down the Merrimac, has many great cotton and woolen mills, and is one of the handsomest

BRIGHTON: THE ELLEN M. GIFFORD HOME FOR CATS AND DOGS.

of manufacturing cities. Haverhill, Whittier's birthplace, is at the head of tide on the Merrimac, and has 27,412 inhabitants, and 7,000 persons in its shoe-factories. Taunton, on Taunton River, manufactures tacks, cotton goods, machinery and Reed & Barton's silverware.

Fall River, near Narragansett Bay, in the southeast, has $40,000,000 worth of immense cotton-factories, drawn up like platoons in a marching regiment, along the stream falling from the Watuppa Ponds. The city hall is a handsome building, of which Wm. R. Walker was the architect. New Bedford, on Buzzards Bay, the leading port of the world in the whale-fisheries, has cotton mills and many diversified manufacturing industries.

Worcester, nestling among the hills along the Blackstone River, is the second city in Massachusetts, with many manufactures and converging railroads, and unusual beauty of streets and public buildings. It was founded in 1669. Fitchburg (22,037 inhabitants), thrives on manufactures, along the Nashua River. Springfield is a pleasant city, founded in 1636, on the Connecticut River, and with admirable public buildings and churches, and the great United-States Armory. Chicopee (14,050) manufactures cotton goods, bronzes and artillery. Holyoke, with the great water-power of Hadley Falls, on the Connecticut River, is the foremost paper-making city in the world, and has other profitable industries. Northampton (14,990) was founded in 1653, in one of the most beautiful situations imaginable, on the meadows near the Connecticut River, near Mt. Tom and Mt. Holyoke, and the historic hamlets of Hadley, Hatfield and Deerfield, buried in immemorial elms. Pittsfield (17,281 inhabitants) is 1,000 feet above the sea, surrounded by the beautiful hills and lakes of Berkshire, and with a marble court-house and an environment of pleasant villas. North Adams (16,074), near the Hoosac Tunnel, in northern Berkshire, has cotton and woolen mills.

THE MALDEN LIBRARY.

Massachusetts has 28 cities and nine towns, each with above 10,000 inhabitants, and 66 other towns, each of above 4,000 inhabitants. The remaining 248 towns are smaller, and 95 of them have fewer than 1,000 inhabitants each.

The Hotel Vendome of Boston is a magnificent marble structure, amid the finest public buildings and churches and the most aristocratic dwellings of the Puritan City. It is in the centre of the Back-Bay District; and unexcelled in architectural picturesqueness, interior beauty, and scientific adaptation for comfort and convenience. Many well-known and wealthy families dwell here permanently; and it is noted for the high order of its transient patronage. Among the guests have been Presidents Cleveland and Harrison, and other hardly less distinguished personages. The Vendome has 365 feet of frontage, and an interior made comfortable by all the improvements of modern times, and strictly fire-proof. This immense edifice is one of the largest and most costly of the new hotels of America, and contains more than 400 rooms. Frescoes, cathedral glass, carved mahogany, rich tiling, and other adjuncts give a dainty æsthetic air to the house; and the health of

BOSTON: HOTEL VENDOME, ON COMMONWEALTH AVENUE.

BOSTON: FIRST SPIRITUAL TEMPLE.

its occupants is ensured by the most modern appliances for heating, lighting and ventilating. The location is unsurpassed by any hotel in the country, for the beauty of its surroundings. The Vendome fronts on Commonwealth Avenue, the patrician thoroughfare of New England, 240 feet wide, and running from the Public Garden to the new Park. The proprietors are C. H. Greenleaf, Amos Barnes, and J. W. Dunklee. Col. Greenleaf is also the proprietor of the famous Profile House, in the White Mountains; and is as well-known to the best class of travellers as any hotel-man in the country.

The Hotel Brunswick of Boston occupies an admirable position on the Back Bay, and its immediate vicinity is the most remarkable locality of its size in the whole of the United States. Here in a small triangle can be seen at a glance those noble churches, the Trinity Episcopal and the Old South Congregational, and close by, the First Baptist, with the richly carved frieze on its tall tower, the Spiritual Temple, the South Congregational, the Central Congregational and the First Unitarian, all together a group hardly to be matched anywhere. But besides religion, here are located the very highest types of art, science, education, literature and whatever else goes to make up the perfection of these times, as typified in the Boston Public Library, the Museum of Fine Arts, the Institute of Technology, the Society of Natural History, the Harvard Medical School, the Boston Athletic Club, the Young Men's Christian Association, and other notable institutions. These are the immediate surroundings of one of the best hotels in the world, an immense seven-story brick-and-sandstone building, richly and comfortably furnished, and equipped with all the modern luxuries and conveniences. It was built in 1874–6, at a cost of over $1,000,000. Among its guests have been Presidents Grant, Hayes and Arthur, the Dukes of Argyll and Sutherland, and countless other persons of eminence in various fields. The proprietors, Amos Barnes and John W. Dunklee, long ago earned their rank as the peers of the best of hosts.

BOSTON: HOTEL BRUNSWICK, TRINITY-CHURCH CORNER.

BOSTON: THE AMES BUILDING.

Massachusetts enjoys the distinction of having one of the most notable building firms in the world, with a wide-spread contracting business, usually upon structures commanding national attention. Norcross Bros., of Worcester, enjoy this preëminence, and their unrivalled structures (many of them designed by the illustrious architect, H. H. Richardson) adorn many cities. They generally use Longmeadow brownstone, or Worcester pink granite, and control large quarries of those valuable materials. James A. and Orlando W. Norcross, young carpenters from Salem, began business together at Swampscott, in 1864, and in 1867 moved to Worcester, ever since their headquarters. Among their great works in construction have been Trinity Church and the First Spiritual

Temple, the High School and the Algonquin Club-house, the Ames, Whittier, Andrew and Converse dwellings, and the Ames and Fisk buildings, in Boston; the Harvard Law School, Gymnasium and Sever Hall, in Cambridge; the libraries at North Easton, Woburn, Malden, Quincy and New Orleans; the Union League Club-house, at New York; the Albany City Hall, Pittsburgh Court House, Cincinnati Chamber of Commerce, Marshall Field wholesale building (at Chicago), and many vast and imposing edifices at St. Louis and Omaha and other distant cities, besides a number of beautiful railway stations and other structures for the use of the people.

BOSTON:
MASSACHUSETTS CHARITABLE MECHANIC ASSOCIATION.

Finances and Banking.—The State debt is about $28,000,000, with cash and funds on hand amounting to $34,000,000, showing net cash assets of nearly $6,000,000. The debt is at five per cent. interest; and is held to be as good as gold, on the European exchanges. The net debts of the counties amount to $3,700,000; those of the municipalities, to $57,500,000. Taxation is steadily decreasing, and amounts to about $14.75 on $1,000. The National banks number 260, with a capital of $97,000,000, $167,000,000 in deposits, $29,000,000 in bonds, $16,000,000 in circulation, and $30,000,000 in bank surplus. There are also 18 trust-companies, with $8,000,000 in capital, and $85,000,000 in assets. The first bank in America was established in Boston, in 1686, and the second one arose in the same city in 1714. The clearing-house business of Boston amounts to $5,000,000,000 a year, and is exceeded only by that of New York.

BOSTON:
MERCHANTS' NATIONAL BANK.

The Merchants' National Bank, of Boston, began in 1831 as the Merchants' Bank, with a capital of $500,000, increased later to $4,000,000. It has never omitted to pay semi-annual dividends, averaging more than six per cent. a year. For nearly 50 years the presidency was held with signal ability by Franklin Haven, and from him it passed to his son, Franklin Haven, Jr., for some years Assistant Treasurer of the United States. The bank stands on State Street, on the site of the Provincial Custom House and the old Bank of the United States, and close to the scene of the Boston Massacre of 1770. It occupies one of the most valuable pieces of land in the city, and the building is a well-known landmark. In 1864 it became a National bank, with a capital of $3,000,000, then and ever since the largest capital of any New-England bank. It also has a phenomenal surplus, amounting to $1,500,000. It has always been a depository of public moneys, and its deposits are large, and its depositors numerous. It has at all times liberally afforded to the community all the facilities in its power, for advancing industrial pursuits and internal trade and commerce.

BOSTON:
KIDDER, PEABODY & CO.

Kidder, Peabody & Company stand at the head of the private banking-houses of New England, and have an immense business in investment securities, besides buying and selling foreign exchange, and issuing mercantile and travellers' letters of credit available in all parts of the world. About the year 1863 this house came into existence, as successor of John E. Thayer & Brother. They represent the great London house of Baring Brothers in this country, and include a Baring among their partners. The banking-house

of Kidder, Peabody & Co., with entrance at 113 Devonshire Street, immediately opposite the Post-Office, cannot be seen from the street; but is the largest and best appointed banking-house in the city of Boston.

NORTH EASTON: AMES FREE LIBRARY.

Massachusetts has 180 savings-banks, with assets of $400,000,000; 108 co-operative banks, with $12,000,000; and two mortgage-loan companies. The savings-banks have 1,000,000 accounts. Of their assets, $144,000,000 is in loans on real estate, $43,000,000 in the public funds, $28,000,000 in bank stock, and $34,000,000 in railroad bonds. The State exercises a careful supervision over the savings-banks, and restricts their investments by sagacious laws. The deposits exceed those of every other State, except New York, and are larger than those of Great Britain. The Provident Institution for Savings, in the Town of Boston, the first savings-bank in America, dates from 1816.

Insurance, now so vast an element in American life, began in Boston in 1728, when the Sun Fire Office was opened, as "an assurance office for houses and household goods from loss and damage by fire in any part of the Province." The fire-insurance written during a year here exceeds $800,000,000; and the marine insurance is about $250,000,000. Careful investigation into the causes of fires, commanded by the General Court in 1888, has caused a marked decrease in incendiarism.

SPRINGFIELD: SPRINGFIELD FIRE AND MARINE INSURANCE COMPANY.

Some of the most important of the insurance companies are those having their headquarters in the smaller cities of New England. The Springfield Fire & Marine Insurance Company, of Springfield, incorporated in 1849, and opened in 1851, is one of the strongest and most enterprising of these institutions, and has numerous agencies throughout the Union. The capital is $1,500,000, and the assets are over $3,500,000, making a surplus as regards policy-holders of over $2,000,000, and a surplus above all liabilities of $675,000. The losses which have befallen the insurers in this company have been met with ready money, as when $525,000 were paid after the Chicago fire, and $250,000 after the Boston fire. The officers are among the leading men in Western Massachusetts, and their best talents are devoted to the work. The Springfield is by far the largest fire-insurance company in Massachusetts, having the greatest capital, and the greatest surplus, and doing many times the largest business.

The immense development of the fire-insurance business, and the momentous interests involved, have given rise to a number of active and versatile insurance agents, preëminent among whom is John C. Paige, of Boston. He was a skillful and experienced underwriter, when he founded a business in Boston, in 1874, which has grown ever since, until now it is the largest of the kind in the United States. He has the American management of the City of London and Imperial Fire of London, and also represents the Fire Association of Philadelphia, the Niagara of New York, the Orient of Hartford (Conn.), the Michigan of Detroit, and Mechanics of Philadelphia: and also does a very large insurance brokerage business, caring for the entire insurance of many of the foremost firms and corporations in New England. Mr. Paige has a large and commodious building at 20 Kilby Street, opposite the Stock Exchange, in the financial quarter of Boston. This he occupies entire, in all its six floors; and nearly a hundred clerks are employed in this building.

BOSTON; JOHN C. PAIGE.

Manufactures are the chief source of the wealth of Massachusetts. They are of the most varied character, employing investments of $500,000,000, with 24,000 firms and corporations, and 420,000 operatives. They use $400,000,000 worth of materials yearly, and pay $150,000,000 in wages; the value of the goods made being $675,000,000. A few of the most interesting of these will be spoken of in the subsequent paragraphs. The Massachusetts Bureau of Statistics of Labor was the first in America (founded in 1869), and is still the most efficient, its reports having a world-wide reputation, and affording authoritative figures on many interesting subjects connected with industrial development.

Clinton makes carpets in great quantities; Westfield, whips; Attleborough, jewelry; Brockton, shoes; Wakefield, rattan goods; Gardner, chairs; and Amesbury and Merrimac, carriages. The silk-mills of Belding Bros. & Co., at Northampton, form one of the great system of works belonging to that corporation, which operates other mills at Rockville, Conn.; Belding, Mich.; San Francisco, and in Canada.

Wire-drawing, as an American industry, began in the Plymouth colony, in 1666, ten years before King Philip's War, when the legislature reported "being desirous to encourage all persons among us in manuall arts and trade of publicque utilitye, and being informed that there are in this towne a sett of tooles for wyer-drawing, and that there be some in this place that are able and skillful in that imploy, the improovement whereof would be of great use in sundry respects, this court does therefore order the Treasurer of the county to disburse out of the public treasury such a sume of money as will be necessary for the purchase of the said instruments and tooles, not exceeding £15; and the Treasurer and Major-General Leverett are appointed and empowered to dispose of the said instruments so as may best further the ends proposed."

WORCESTER: WASHBURN & MOEN MANUFACTURING CO.

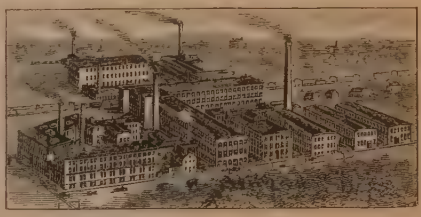
The manufacture of iron and steel wire in Massachusetts shows a yearly output of $8,000,000. The foremost house, not only in America, but in the whole world, is the Washburn & Moen Manufacturing Company, founded in 1831, at Worcester, by Ichabod Washburn, and incorporated in 1868. They employ 4,000 operatives, in very extensive and varied methods of wire-working, including wire rods, telegraph and telephone wire, material for wire cloth, bale ties, barbed-wire for fences, screws, card wire, and many other lines of manufacture. The works cover twelve acres of floor-space, with many substantial brick buildings, admirably appointed for their purpose. The North Works occupy ten acres of ground, and the South Works include 30 acres; and the company also has warehouses and offices at New York, Chicago, Philadelphia and San Francisco. The product includes 150 varieties of wire, and articles made of iron, steel, and copper wire, and the uniform high quality of these goods gives this house its commanding position.

WORCESTER: WASHBURN & MOEN MANUFACTURING CO.

NORTH EASTON: OLIVER AMES & SONS.

The shovel-making industry of the Oliver Ames & Sons corporation, at North Easton, the largest shovel works in the world, began in the year 1776, when Capt. John Ames, the Bridgewater blacksmith, began to forge cumbrous hand-shaped shovels at his little shop, in West Bridgewater. In 1803 his son, Oliver Ames, founded the factory at North Easton, which is now run by his descendants. His sons, Oakes Ames and Oliver Ames, were well-known in the political world and as promoters of the Union Pacific Railway. The business is now owned by Oakes A. Ames and Oliver Ames (recently governor of Massachusetts), sons of Oakes, and by Frederick L. Ames, son of Oliver Ames, Junior, the second of the name. The hammer shops are at Easton, West Bridgewater (on the site of the original shop of Capt. John Ames, which has always remained in the family), South Braintree, and Canton; and thence the moulds pass to North Easton to be finished, polished, and made ready for market. Of shovels and spades 860 varieties are sent all over America and the civilized world, nearly 2,000,000 being turned out every year. These articles have received gold medals at Melbourne and Sydney, Paris and Santiago. The village of North Easton, which has grown up around the shovel-works, is beautified and guarded by the Ameses with fraternal interest, and they have adorned its streets with a town hall and library and other noble buildings, designed by H. H. Richardson, and constructed of fine masonry.

That electricity has become a powerful element in the production of artificial light and the transmission of power is attested by the cities whose streets are illuminated by electric lamps, and where the electric current has displaced animal power for street-car propulsion, and the innumerable installations where electricity is used for lighting and various forms of power transmission. The apparatus in the larger part of these plants is manufactured by the Thomson-Houston Electric Company, which has its principal office in Boston, and branch offices in important cities all over the country. This is the only electric company prepared to furnish complete systems of arc lighting, direct and alternate current incandescent lighting, and the transmission of power for electric street-railway and stationary work. The Thomson-Houston Electric Company was organized at New Britain (Conn.), in 1880; and remained there until 1883, when the business was moved to Lynn. From that time until the present the capacity of the works has been constantly increased, until they are to-day the largest in the world devoted exclusively to the manufacture of electrical apparatus. Prof. Thomson, who, with Prof. Houston of Philadelphia, designed the arc dynamo which has met with such general adoption, still retains the scientific supervision of the work of designing and manufacturing new apparatus. That the company's systems are in extended use is evidenced by the fact that there were in use January 1, 1891, in the United States alone, more than 80,000 arc and 500,000 incandescent lamps of Thomson-Houston manufacture.



LYNN: THOMSON-HOUSTON ELECTRIC CO. AND THOMSON-HOUSTON MOTOR CO.

The Thomson-Houston Motor Company has made the application of electrical power transmission a specialty; and the practical results have demonstrated the almost unlimited variety of uses to which the transmission of power by electricity may be applied. That the steam engine, with its accompanying annoyances, may be replaced by quiet-running

electric motors, which are free from all danger, compact and reliable, added to the actual saving in expense which is secured by such a change, is a fact that has been clearly demonstrated; and the constantly increasing demand for electrical power to do all kinds of work shows that the electric motor has obtained a permanent position in the field of power transmission. There are thousands of Thomson-Houston motors in printing-offices, machine-shops, and shoe-factories. Electric tramways for transportation of coal, raw materials, and manufactured products of mills and manufactories have become one of the standard demands. The Thomson-Houston motor is the only one that has been successfully applied to work of this nature. The same statement holds for the application of electric power to the operation of drawbridges; and although electricity has been used for this purpose but a short time, the favorable attention of engineers and bridge-builders has been excited by the plants now in operation. A still more recent application of electrical power is the electric elevator. That this method of furnishing power for elevators is economical, safe, and reliable is being realized more and more, and there has been a constantly growing demand for plants of this description. The company is prepared also to furnish complete electric hoists and travelling cranes, which for facility and economy in doing heavy work cannot be surpassed.

WALTHAM: AMERICAN WALTHAM WATCH CO.

The largest watch-factory in the world, and the oldest in the United States, is at the ideal little city of Waltham, where the beautiful Charles River emerges from the hill country of Massachusetts, a few miles from Boston. These great works of the American Waltham Watch Company abound in wings, towers, courts, and offices, and imposing architecture, and their surroundings are decorated with trees, lawns and flowers. The company employs 1,600 men and 1,200 women, all but 120 of them being Americans, and the average age being 32 years. The product of these works has passed 5,000,000 fine watches, and its daily product is 2,000. Fully 3,700 operations are necessary to make a stem-winding watch; and all these are performed by the most marvellous machinery, guided by intelligent, skilful and apt employés, many of whom are stockholders in the company. The American Waltham watches are celebrated all over the world for their accuracy and durability, and have added much glory to the acknowledged supremacy of American ingenuity. The capital stock of the company is $3,000,000, and there is a large surplus. Its main financial office is in Boston, with sales-rooms in New York, Chicago, Boston, Montreal, and London.

The first Britannia articles made in America were turned out at Taunton, in 1824; and six years later was built the brick factory which after three-score years still forms a part of Reed & Barton's plant, which is now enormous, substantial, and picturesque. The works cover ten acres, and have six acres of flooring in their 16 brick buildings, where the company employs 700 men, including many of the most skilful metal-workers in the world. Britannia is now but a small product, having been almost wholly superseded by the highest grades of gold and silver electro-plated ware, of rare artistic designs and manifold descriptions. In 1889 Reed & Barton began the manufacture of sterling silver ware. The various useful and ornamental articles made here are sold in all parts of Europe and Australia, as well as North and South America, and compete with the highest grades of any

TAUNTON: REED & BARTON.

producers, the stamp "Reed & Barton" being generally recognized by the trade and connoisseurs as sufficient guaranty of superb quality.

SPRINGFIELD: SMITH & WESSON.

Smith & Wesson founded their great arms-making business in Springfield in 1857, with 75 workmen, and developed it efficiently and rapidly, until it now employs from 400 to 700 skilled workmen, and turns out 90,000 revolvers yearly. The factory is equipped with many ingenious and unusual patented devices, which have been acquired by the company. Unhappy America used the entire product of this establishment until 1867. Since then, vast numbers of revolvers have been sent hence to Japan, China, Chili, Peru, Brazil, Cuba, Mexico, Turkey, England, and all Europe. The Russian Government has bought 150,000 of them. The parts of these weapons are interchangeable, of the best wrought-steel, and rigidly inspected. The points specially in favor of the Smith & Wesson revolvers are their safety, force, excellence of material, and simplicity and convenience in loading. The latest invention made here is a new model revolver, provided with a safety device, which absolutely prevents accidental discharge of the arm.

The Wason Car-Manufacturing Co., at Brightwood (a suburb of Springfield), was founded by Thomas W. and Charles Wason, in 1845. The little shed then used has grown into a vast establishment, with six acres of flooring, and sixteen acres of ground, and employing 400 workmen, on the average. Lossing's superb volume, *The American Centenary*, calls this "the most extensive car-works in America." The product of a single year has exceeded $1,500,000, and the cars made here are now running on every continent, in the valley of the Nile and over the Andes of Chili, as well as along our great American lines. A single contract with the Central Pacific exceeded $1,700,000; and one with the Central Railroad of New Jersey reached $1,500,000. Every detail of this peculiar and interesting business is carried out with scrupulous care at the Wason works. The Royal carriages for Portugal and Egypt were triumphs of art turned out here; and many other sumptuous cars now running on distant roads bear witness to the genius of the Wason mechanics.

SPRINGFIELD: WASON CAR WORKS.

The late B. F. Sturtevant, a native of Maine, with no other possessions than a knowledge of the shoemaker's trade, an indomitable will, and marvellous ingenuity, first sought his fortune in Boston in 1860. Noticing that the leather dust and clippings from the shoe-buffing machines then in use were exceedingly annoying, he invented a blower to draw them away. Experiment showed these fans to be equally well adapted for removing all kinds of light refuse, for blowing forge and cupola fires, and for the ventilation of buildings. By untiring experiment the fan-blower was brought up to its present high standard of perfection, and its various applications vastly increased. The combination of the fan-blower and steam-heater in the Sturtevant Steam Hot-Blast Apparatus marks an epoch in the method of heating and ventilating buildings, and also in the drying of lumber, cotton, wool, fabrics, pottery, and other articles. It furnishes warm, pure air, is positive in its action, and removes all danger from fire and leakage. In 1878 an extensive brick manufactory, having a floor space of over five acres, was erected in the Jamaica-Plain District of Boston, where 400

BOSTON: B. F. STURTEVANT CO.

BOSTON (ROXBURY): BOSTON BELTING CO.

men are now employed. It is by far the largest blower manufactory in the world. Business is now carried on under the title of the B. F. Sturtevant Company, with branch houses in New York, Boston, Chicago, and London.

The Boston Belting Company is the original manufacturer of vulcanized rubber goods, and has a world-wide reputation for the excellence of its manufactures. It was established in 1828, in Roxbury (now a part of Boston), where the works are still located. The works are the largest in the world devoted to the manufacture of mechanical rubber goods, and occupy more than two acres of ground, mostly covered with substantial four-story buildings. The machinery, which is of the most powerful and improved kind used in this manufacture, is operated by several large steam-engines. Employment is given to 450 operatives, and more than 2,000 tons of pure rubber and cotton-duck and cloth are used yearly, in the manufacture of a superior quality of rubber belting for transmitting power to all kinds of machinery. Rubber hose for conducting water, steam and air; rubber packing for packing water, steam and air joints; rubber valves for use in connection with stationary and marine engines, steam pumps and similar mechanisms; rubber blankets for newspaper, book, lithograph, and other printing presses, and calico, satinet, and wall-paper printing machines; rubber-covered rollers for use in cotton, woolen, and paper mills, print and dye works, and bleacheries; rubber deckle-straps used on paper-making machines; rubber suction hose for fire-engines and for marine and mining, and other purposes; rubber gaskets, springs, tubing, and a great variety of other articles. The daily output of the works is ten tons of manufactured goods, which are distributed over the civilized world. The capital is $700,000, with a large surplus. The company has stores in Boston and New York, and agencies in the leading cities of the United States and Europe. The manufacturing agent and general manager, James Bennett Forsyth, has been with the company more than a third of a century, and is the patentee of most of the useful inventions which have so greatly aided in building up its business.

MELROSE: BOSTON RUBBER-SHOE CO.

Rubber and elastic goods are made by 27 Massachusetts companies, to the yearly value of over $7,000,000, from the gum obtained from the creamy juices of certain Brazilian and Asiatic trees. The first rubber shoes in the civilized world were a single pair, brought by a sailor from Para to Boston, in 1825; and during the next ten years a small trade arose, which attained vast proportions when Hayward and Goodyear, two New-England men, more nearly perfected the processes of manufacture. The largest concern of the kind in the world is the Boston Rubber-Shoe Company, founded in 1853, and mainly built up by its treasurer and general manager, Elisha S. Converse, until it employs 2,800 operatives, and can make 45,000 pairs of shoes daily. The

MALDEN: BOSTON RUBBER-SHOE CO.

great warehouse and offices are in Boston, and the two factories are five miles distant, and a mile apart — No. 1 occupying the site of the little wooden factory originally used, in Malden, and No. 2 being in Melrose, on the edge of the Middlesex Fells. The shoes made here are in many scores of varieties, from women's light Broadway slippers and button gaiters up to the ponderous "overs" worn by lumbermen in the Maine and Canadian forests, and the heavy hip-boots for Gloucester and Pacific-coast fishermen and Chesapeake gunners.

The ancient gibe that the only natural products of Massachusetts are granite and ice has no foundation in fact, now that her farms yield nearly $50,000,000 a year. But even this output fails to feed the hungry, hearty and prosperous millions of people between the yellow sands of Cape Cod and the blue hills of Berkshire, and therefore great meat-packing houses have risen, for handling incoming Western live-stock from the prairie States. There are only two larger pork-packing houses than that of John P. Squire & Co., at East Cambridge. Twenty-one acres are required for their immense brick buildings and adjuncts; over a thousand persons are in their employ; and their yearly business exceeds sixteen million dollars. Their meats are used in every market from Maine to Texas, and in nearly every meat-consuming country in Europe. The business was established by John P. Squire in 1842; and he and his two sons, Frank O. and Fred F. Squire now comprise the firm.

EAST CAMBRIDGE: JOHN P. SQUIRE & CO.

The chocolate mill built on the Neponset River, in Dorchester, in 1765, is said to have been the first factory of the kind established in the British provinces of North America. The inception of the enterprise was due to representations made by James Hannan, an Irish immigrant, who had learned the "mystery" of chocolate-making in England. Small quantities of crude cocoa, brought home by Massachusetts sailors, had been roasted and coarsely ground before; but the more delicate and nutritious preparation was undoubtedly first manufactured at the Dorchester mill. The new industry prospered in a small way, and on the death of Hannan, in 1780, Dr. James Baker established the house which has continued the business without interruption from that day to this. It is certainly an interesting fact, and one without parallel in this country, that on the spot where such a small enterprise was started a century and a quarter ago, there has grown up one of the greatest establishments in the world, the house of Walter Baker & Co., which competes successfully for prizes in all the great industrial exhibitions of Christendom, whose influence is felt in the great commercial centres, and whose prosperity promotes the welfare of hundreds of men who labor under a tropical sun in the cultivation of one of the choicest fruits of the earth. Their various preparations from the cocoa bean have stood the test of public approval for more than one hundred years, and are the acknowledged standard for purity and excellence. The Baker Chocolate Mills are massive, modern brick buildings, close to the Neponset River.

DORCHESTER (BOSTON): WALTER BAKER & CO.

Confectionery is largely manufactured in Massachusetts, the leading house being Fobes, Hayward & Co., of Boston, one of the largest in America. It began in 1848, under Daniel Fobes's direction; took the present name in 1860; and received incorporation in 1886. This establishment covers acres of flooring, and has 300 operatives, with a great amount of ingenious machinery, made in the building from the company's designs. The annual product is 6,000,000 pounds of candy, the chief staples being lozenges,

BOSTON: FOBES, HAYWARD & CO.

which are cut in parts, like crackers; gum-drops, made from a solution of sugar and gum-arabic; marsh-mallows of a superior quality; chocolate confections of many kinds and grades; and "panwork," including candied almonds, cloves, and other goodies. No other line of goods is so free from adulterations as this, for the main element is the best refined sugar, and the purity of all the ingredients is carefully looked after. The Fobes, Hayward & Co. goods are thoroughly distributed all over the Union, even to Oregon and California.

In several respects the recognized preëminent house in the boot and shoe business of New England is the firm of Wm. Claflin, Coburn & Co., one of the oldest houses in the trade (if not the oldest). It was founded in 1821, by Lee Claflin, whose son, Wm. Claflin, now the senior partner, has served with honor as member of Congress and Governor of Massachusetts. Their factories are located at South Framingham and at Hopkinton, and produce men's and boys' boots and shoes, from calf and veal, split and grain leather, in sewed, pegged, and standard screw. The Hopkinton works were founded in 1843, in conjunction with N. P. Coburn (now of Newton), one of the senior partners. Another of the partners is James A. Woolson (of Cambridge), who has been connected with the house since boyhood, for over 40 years. The South-Framingham factory is run under the style of Gregory & Co., Wm. F. Gregory being one of the junior partners, the other being Oliver B. Root (both of Framingham). The headquarters of the firm are on the site of Daniel Webster's home, on Summer Street, Boston, in a spacious and handsome iron structure, rebuilt in 1890.

BOSTON OFFICE.

WM. CLAFLIN, COBURN & CO.'S FACTORIES.

Another one of the greatest houses in the boot and shoe business is that of Rice & Hutchins, which, although founded by W. B. Rice and H. H. Hutchins, in 1866, only a quarter of a century ago, has risen to an unquestioned preëminence in the trade. The firm own and operate seven factories at Marlborough, North Easton, and Boston, and at Warren (Maine), where they employ 3,000 operatives, making a complete variety of boots and shoes for men, boys, and youths. Besides their own goods, they handle various lines of other manufactures. The house is reported as worth upwards of a million dollars, and does a business exceeding $2,000,000 a year, sending their goods to all parts of the country, and continually adding to their resources and trade. The main offices and salesrooms of Rice & Hutchins are in Boston.

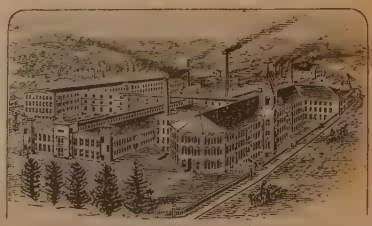
RICE & HUTCHINS'S FACTORIES.

The textile manufactures of the world have been greatly advanced by the Crompton Loom, one of the most beneficent discoveries of the century. In 1836, William Crompton, a skillful mechanic, weaver and mill-superintendent, migrated from Lancashire in England to Massachusetts, where, to meet a demand, he invented the loom which bears his name. He patented it in America in 1837, and in England soon afterward; and in 1840, with the aid of this machine, the Middlesex Mills, of Lowell, wove the first fancy cassimeres that

WORCESTER : CROMPTON LOOM WORKS.

had ever been made in the world by machinery. George Crompton succeeded to his father's business in 1849, and made many improvements and modifications for weaving ginghams, carpets, ribbons, silks, tapes, and fine woolen cloths. After his death, in 1886, this vast business was incorporated under the name of the Crompton Loom Works. The works at Worcester occupy extensive and handsome Queen-Anne buildings, and employ 700 men, and a vast quantity of ingenious machinery, making looms for mills all over the Union. They are the largest fancy-loom works in America, and their varied products are remarkable for simplicity of construction, rapidity and power of action, and ability to produce the choicest weaving effects; and are constantly receiving improvements in mechanism.

Whitinsville, in the town of Northbridge, possesses the Whitin Machine Works, that for over 60 years have been known to manufacturers of cotton goods the world over. This vicinity as early as 1700 was known for its iron-mines, and the public records ever since 1727 make frequent reference to iron-works. One third ownership in these was acquired in 1794 by Paul Whitin, the father of John C. Whitin, to whom is chiefly due the credit of the great machine-works. At the iron-works was first made bar and scrap iron, and later agricultural implements, including a specialty of the large hoes used by slaves in the South. But the machine-shops did not arise from the iron-works, although no doubt the inherited interest in iron-working had some influence. The Whitin families had become interested in cotton manufacturing, and were among the pioneers in this line in the Blackstone valley. Paul Whitin in 1814 became one of the founders and main owners of the Northbridge Cotton Manufacturing Company, the original mill of which years afterward became the main shop of the machine-works. The picking of cotton was a laborious and crude matter, the cotton being sent out a bale or part of a bale at a time to families, until John C. Whitin, in 1830, created a picker or lapper that effectually did away with hand labor. That useful picker practically gave rise to these cotton-machine factories, which in size of plant, in thoroughness of equipment and in value of output of strictly cotton-machinery, surpass all others on this continent. The neatness of the extensive factories and the attractiveness of their surroundings are especially notable. At these works is made a full line of cotton-machinery, including openers, lappers, cards, railway-heads, drawing, ring spinning, spoolers, twisters, reels, looms, and other articles. While the Whitins have taken out many patents, their remarkable success has been attained mainly by the unquestioned superiority of their machinery and their recognized business ability. The firm for over 30 years was P. Whitin & Sons; and the business included the cotton-manufacturing and the machine-shops. In 1865 John C. Whitin alone acquired the machine-works, which since 1870 have been owned by the Whitin Machine Works, a stock company with a capital of $600,000, and whose plant covers over eight acres of floor-space. It is run by water power from Mumford River, and gives employment in the busy season to one thousand men.



WHITINSVILLE : WHITIN MACHINE WORKS.

Among the comfortable domestic appointments of the first colonists were found many bits of highly-prized carpet, brought from over the seas. Governor Eaton had plate to the value of £150, and besides this treasure, tapestry coverings and a "Turkish carpet." The

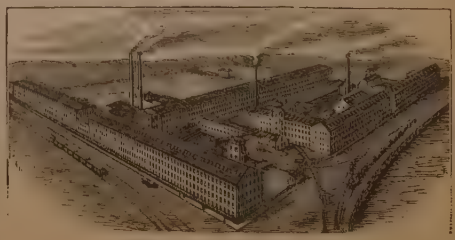
inextinguishable rage of modern Boston for Oriental rugs, prayer-mats from Bokhara and Turkestan, finely woven Ispahan and Mirzapore carpets, and draperies from Constantinople and Kurdistan, has thus a warrant of heredity more than two centuries old. The Lowell Carpet Company has in the city of Lowell the largest carpet-mills in America, and there is but one in all Europe as large. This immense enterprise dates from 1828. In 1838, E. B. Bigelow was enabled under its auspices to complete his great invention of the carpet power-loom which was first successfully put in operation at the Lowell works. The growth of this industry has been rapid and solid, and since 1880 it has doubled its output. More than 2,000 people are employed, making the best quality of Wiltons, Brussels, and Ingrains, which are distributed all over America. When in full operation the mill uses 10,000,000 pounds of wool a year, and produces upwards of 4,000,000 yards of carpet. The processes of manufacture are exceedingly interesting, and the wonderful machinery used in the mill seems possessed of almost human intelligence.

LOWELL : LOWELL CARPET CO.

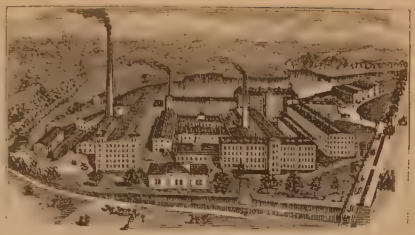
The mills of the Dwight Manufacturing Company are at Chicopee, three miles above Springfield, and embrace the Cabot mills, organized in 1832; the Perkins Company, in 1836; and the Dwight Company, in 1841. These mills were consolidated in 1856, under the present name, and now have 130,000 spindles, 3,400 looms, and upward of two miles in length of floor space. They form one of the finest plants in New England, and its goods have a world-wide reputation. Its heavy Cabot sheetings find a market in China and Turkey, Africa and South America, while its Anchor sheetings, Dwight Stars, and other brands —of which a large variety are made—have a leading reputation with the trades. The treasurer of the company is J. Howard Nichols, with his office in the Exchange Building, Boston; and the selling agents are Minot, Hooper & Co., of Boston and New York.

CHICOPEE : DWIGHT COTTON MILLS.

The chief corporation in New Bedford is the Wamsutta Mills, one of the largest and best-known companies in New England, incorporated in 1846, and now possessed of a capital stock of $3,000,000, and a plant worth over $4,000,000, ably directed by Andrew G. Pierce, the treasurer. The company has six great mills, of stone and brick, containing 217,000 spindles and 4,250 looms, and employing 2,500 operatives, making eighty varieties of fine shirtings and sheetings, cambric muslins, lawns and momie cloth, sateens and cretonnes, and fine fancy weaves, besides great quantities of fine cotton yarns. When running full, the Wamsutta Mills use yearly 25,000 bales of cotton (much of it 1¼ to 1½-inch staple, and also the strong "benders" variety, grown in the bends of the Mississippi River); and make from it 24,000,000 yards of cloth, half of which is sent to Sayles' Bleachery to be whitened, while the rest is sold in the "brown." The standard and unvarying excellence of its shirtings and sheetings has made Wamsutta a household word all over the civilized world.

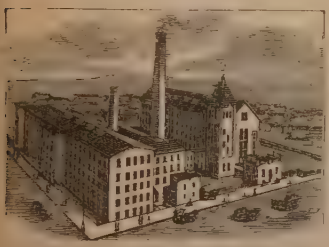


NEW BEDFORD : WAMSUTTA MILLS.



MAYNARD : ASSABET MILLS.

One of the largest American establishments for the manufacture of woolen fabrics is that of the Assabet Manufacturing Company, at Maynard. Nearly every kind and quality of woolen fabric is here manufactured; and the products of the mills are widely known and find a ready market in every State in the Union, and in Mexico, South America and Europe. The works cover ten acres of flooring. The yearly consumption of wool is 5,000,000 pounds. The amount of goods yearly manufactured is 8,500,000 yards, strictly wool. No cotton is ever used in this establishment. The mills have 66 sets of the most improved woolen machinery, and employ 1,000 persons constantly. In 1845, Amory Maynard and William H. Knight bought the water-rights, and the Assabet mills were begun the next year, and opened in 1847, for making carpets and carpet-yarns. Knight retired in 1852; and Maynard gradually changed the machinery, and made blankets and flannels. Steam-power was not introduced until 1862. The yearly product now reaches over $2,000,000, in all classes of woolen cloths, cassimeres, flannels and other varieties; and the name of Assabet Mills is a perfect guarantee of high excellence. The present company was organized in 1862, and its officers are Charles P. Hemenway, President; T. Quincy Browne, Treasurer; and Lorenzo Maynard, Agent.



HOLYOKE : WM. SKINNER MANUFACTURING CO.

Another preëminent industry of Massachusetts is the manufacture of silk piece goods for tailoring purposes, in which the William Skinner Manufacturing Company stands without a rival in the world, being also the foremost house in America for making braids for tailors' use. This commanding department of the Bay State's industrial development dates its origin from 1848, when William Skinner began the manufacture of sewing silks. The works were at Haydenville, and suffered total destruction by the fatal bursting of the Williamsburg reservoir, in 1874. They were rebuilt at Holyoke, on a larger scale, and the company received incorporation in 1889, replacing the title of William Skinner & Sons with the present one. All makers of clothing for American men are familiar with the fine products of these Holyoke mills, which are mainly wholesaled through the company's stores at New York, Boston, and Chicago.

The manufacture of straw goods for ladies and children was placed on a firm basis in 1832, by William Knowlton, at West Upton, which had been celebrated even then for nearly a score of years for its straw cord, gimps, braids, and bonnets. The works of Wm. Knowlton & Sons now cover five acres, and employ 1,500 persons, making straw plaits, braids and laces, from all over the world (and principally from Italy, Switzerland, China, and Japan), into all manner of articles for feminine head-wear. This is the foremost American house in the manufacture of ladies' hats, and is famous for the beauty and taste of its designs and the perfection of its goods. For three generations, working in straw has been the foremost industry of this peaceful village, and the accumulated experience and tact thus made hereditary has been augmented by locating here many English straw-workers from Luton. The

WEST UPTON : WM. KNOWLTON & SONS.

WORCESTER : T. K. EARLE MANUFACTURING CO.

founder of the house died in 1886, and the business is carried on by his four sons, in the old name. The sales-room of Wm. Knowlton & Sons is at New York.

The T. K. Earle Manufacturing Company of Worcester was the oldest and largest concern in the United States for the manufacture of card clothing, and its productions have a reputation which is second to none. July 1, 1890, this company sold its machinery, patents and stock to the American Card Clothing Company of Worcester, a corporation formed for the manufacture of card clothing, and which bought out all of the important card making concerns in the United States at the same time. The American Card Clothing Company has control of all the needle-point grinding patents and also of the patent flexifort card cloths. These last-mentioned card-cloths are the best backings or foundations for card-teeth yet discovered, being entirely without stretch and of practically unbreakable strength, and they are rapidly displacing all other foundations for the best card clothing. The patent flexifort consists of straight laid linen warps, which cannot stretch, and it is introduced into all kinds of card-cloths. The American Card Clothing Company has factories at Worcester, Leicester, Providence, Lowell, Lawrence, Walpole, North-Andover Depot, Manchester, and Philadelphia; and has a complete equipment for its trade, including needle-point and flexifort card-cloth patents, as previously mentioned. It is managed by conservative and careful men, who give the business their whole attention, and whose practical experience has stood the test of satisfying American cotton and woolen manufacturers with first-class card clothing for the past fifty years.

CHELSEA : SUFFOLK CORDAGE CO.

Among the products necessary for the maritime business of New England, cordage holds an important place, and its manufacture was one of the first industries of the colonists. Fishing and agriculture were their chief means of support, and the need of cordage in fitting out their fishing fleets compelled them to make their own ropes. Boston was the centre of this industry, and its rope-makers at the beginning of the Revolution were among the most daring in resisting the British soldiery. In the rope-walk at the Charlestown Navy-yard is manufactured all the cordage required by the Navy Department. In the adjoining city of Chelsea, the Suffolk Cordage Company (whose office is in Boston) has an establishment of far greater magnitude, fitted up with all the modern machinery. Their rope-walk is 1,700 feet long; and is connected with the main building, 300 feet long by 100 feet wide, and two stories in height, in which 500 jenneys are busy spinning yarns for rope-making. This factory stands on a tract of 50 acres, connected with the Boston & Maine and Boston & Albany Railroad systems, thus facilitating the shipment of goods to all parts of America. Within the past ten years there has been a great change in the cordage industry. Prior to 1880, the product was chiefly used for maritime and mechanical purposes, but now a large part is in the shape of binder-twine, 50,000 tons in weight (amounting to over 10,000,000 miles in measurement) of which is used yearly for binding wheat. The product of the Suffolk Cordage Company varies from this binder-twine, about $\frac{1}{16}$ of an inch in diameter, to immense hawsers, twelve to 15 inches in circumference, and

DANVERS : STATE INSANE ASYLUM.

HOLYOKE: PARSONS PAPER CO.

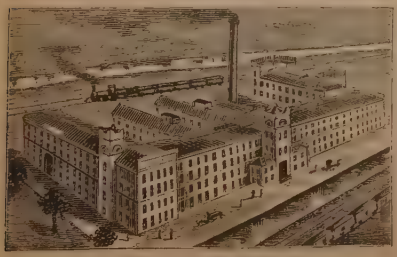
adapted to the severest strain to which ropes are applied.

The wonderful development of Holyoke, "The Paper City," from an obscure riverside hamlet to a municipality of 36,000 inhabitants, making 180 tons of paper daily, comes in great part from the faith and enterprise of Joseph C. Parsons, who after 13 years of paper-making elsewhere, came to this place in 1853, and established the first mill of the Parsons Paper Company, now one of the preëminent paper-making establishments of the world, having a plant worth upwards of a million dollars, and a business coextensive with the boundaries of this country. The Parsons mills make the finest grades of bond and bank-note paper, Scotch linen ledger, parchment paper, and other varieties. They have developed, year after year, and erected new buildings, with modern equipments, to supply the rising demand for exquisite qualities of paper. The Parsons Paper Mill No. 2, said to be the best in the world, and with the finest and most improved machinery, dates from 1889, and is devoted to the choicest grades of paper and the most interesting processes of its manufacture.

The making of paper was one of the earliest industries of Massachusetts, having been started in 1730, by Daniel Henchman, an enterprising Boston bookseller. Close by his mill, amid the picturesque hills of Milton, dwelt the Crane family, whose sons thus early became familiar with the mysteries of paper-making. In 1799 young Zenas Crane mounted his horse, and rode westward, until he found the pure and copious waters in the pleasant glens of Dalton, and in 1801 he founded a little one-vat paper-mill, the first mill built in Berkshire County, with a capacity of 2,500 sheets a day, and a force of seven operatives. From this germ sprang the 25 great paper-mills of Berkshire, with their yearly product of $3,500,000. The factory afterwards famous as the Old Red Mill was built by Carson, Chamberlin & Wiswell, in 1809, and the following year Mr. Crane became a partner and manager, advancing to its sole proprietorship in 1822. This mill was burned in 1870, and replaced with the stone Pioneer Mill, fitted with the most modern and costly machinery. When Zenas Crane died, in 1845, his business passed into the hands of his sons, Zenas M. and James B. Crane, who have given the name of Crane & Co. a world-wide reputation. Crane & Co., in their Government Mill, have since 1879 made all the paper for the United-States bonds, checks, postal notes, certificates, and National-bank and treasury-notes. The National flag constantly flies over it, and Treasury-Department officials are kept on duty there. The Pioneer Mill makes parchment and bond papers, and also bank-note paper. Crane & Co. manufacture more of the money paper on which the world's circulating medium is printed than any other firm in America or Europe, and supply many foreign governments, like Canada, Mexico, the South-American republics, Greece and Italy. Zenas M. Crane, then senior member of the firm of Crane

PIONEER MILL.
DALTON: CRANE & CO.

GOVERNMENT MILL.



HOLYOKE: PARSONS PAPER CO.

& Co., died March 12, 1887, at the age of 72 years. The present members of the firm are James B. Crane, Zenas Crane, and W. Murray Crane.

DALTON: Z. & W. M. CRANE.

One of the great mills at Dalton is that of Z. & W. M. Crane. This plant is devoted to the manufacture of ladies' fine stationery, satin-finished, dead-finished, Distaff, Parchment, Vellum and other varieties, in delicate tints, and of unsurpassed finish and elegance. These exquisite papers have triumphantly won the supremacy formerly accorded to the best grades of foreign paper, and are used by ladies of taste and cultivation all over the Union. The members of this firm, Zenas Crane and W. Murray Crane, are also partners in Crane & Co. and the Old Berkshire Mills. This great family, which has done for American paper-making more than the Montgolfiers did for that of France, has been prominent in public life and in the generous endowment of philanthropies. Zenas Crane, the pioneer, was Executive Councillor to Gov. Everett; Zenas M. Crane, to Gov. Andrew; and Zenas Crane, to Gov. Robinson. The present mill of Z. & W. M. Crane was built in 1877, and is especially equipped for producing the finest goods in its line.

The mountains looking down on Dalton, and the bright Housatonic River rippling past its farms and churches, may well feel proud of their little Massachusetts village, whose fame in fine paper-making has gone into the ends of the earth, and whose materials will be used to pass down written and printed records of this generation to all future generations. Here are located the mills of Byron Weston, who makes the best paper in the world for records, ledgers, and legal documents. Nearly four tons of this excellent product are manufactured daily, and vast quantities are shipped to the Far West and the Pacific Coast, as well as to all the older States. This is the only paper-mill in the world devoted exclusively to fine linen ledger and record paper, and only one grade of each, and that always the best. Byron Weston learned the art of paper-making at Saugerties (N. Y.), and in the mill at Lee (Mass.), and elsewhere. He served as a captain in the 49th Massachusetts, in Louisiana, and received a wound at Port Hudson; and then returned home, and bought a paper-mill at Dalton, where he soon concentrated his energies on making document and legal paper, to "defy the tooth of time." The plant now comprises two large and elegant mills, complete in every respect. Up to 1870 most of the paper used for American records and public documents came from England, but now only one or two record offices use imported paper, the Weston product being much better. Over 20 first-class medals have been received for superiority and excellence, including the Paris Exposition, the Centennial, the Adelaide, the New-Zealand, the Franklin Institute at Philadelphia, and the Massachusetts Charitable Mechanic Association. Mr. Weston served as Lieutenant-Governor of Massachusetts in 1880–83; and occupies the beautiful estate of Westonholme, at Dalton.

DALTON: BYRON WESTON PAPER-MILLS.

Some of the largest and most noted paper-mills in the world are found in Massachusetts, the pure water of whose streams is peculiarly adapted to this industry. Among the oldest and foremost dealers in paper of every variety, and paper stock, wood pulp, and similar staples is the Rice-Kendall Company of Boston, whose trade covers a vast area of the United States, and draws its supplies from many sources. Alexander H. Rice became a partner in Wilkins, Carter & Co., in 1844, and a few years later joined Charles S. Kendall

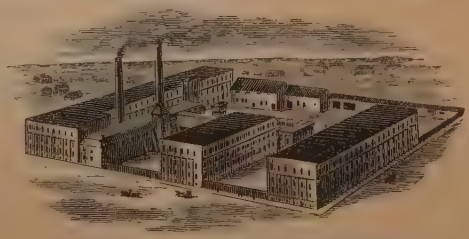
in a new firm, styled Rice, Kendall & Co., succeeded in 1889, after almost half a century's successful career, by a stock company styled the Rice-Kendall Company. Mr. Rice has served the people for many years, as mayor of Boston, member of Congress, and Governor of Massachusetts. As agents of numerous paper-mills, this house has sent out hundreds of thousands of tons of paper, in bundles and in rolls, to the great daily papers and the leading periodicals, besides supplying the printers and book-publishers of nearly every State with thousands and thousands of reams upon which the books of the past half-century have been printed. The Rice-Kendall Company have their main offices and warehouses in Boston, but the greater part of their paper is shipped direct from their various mills in New England to their patrons throughout the country.

BOSTON: RICE-KENDALL CO.

The Morgan Envelope Company of Springfield was founded in 1864 by Elisha Morgan, and incorporated in 1870; and in 1882 erected its handsome factory, 230 x 55 feet in area and six stories high. It is hardly equalled anywhere for its size, perfect equipment, large capacity, and elegant offices. There are 250 operatives, and the capacity of the works is 2,500,000 envelopes a day. The company had the original contract for making United-States postal cards, and finished and delivered 51,000,000 in 90 days. The various grades of papeteries manufactured here are sold in great quantities all over the country, being distinguished for originality of designs and uniform excellence of finish. This company is also the largest manufacturer of toilet papers in the world, and has a score of patents therefor. The Morgan and Plympton companies have for 16 years supplied the Post-Office Department with all its stamped envelopes and wrappers, and the envelopes used in official business, amounting to 600,000,000 during the year 1890.

SPRINGFIELD: MORGAN ENVELOPE CO.

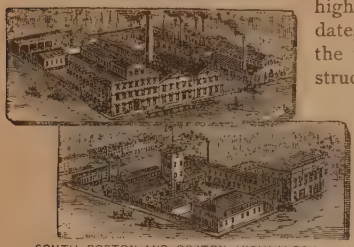
One of the half-century industrial organizations of Massachusetts is the Dennison Manufacturing Company, whose works at Roxbury and elsewhere employ more than 1,500 hands. The business of making paper boxes for jewelers was established in 1839, by A. L. Dennison, a Boston jeweler, who had the boxes made by hand in his father's dwelling-house at Brunswick, Maine. This A. L. Dennison afterward invented the American watch. About the year 1844, his brother, E. W. Dennison, came to Boston, and became agent for the box business, which he pushed with great energy, adding thereto the manufacture of jewelers' cards, tags, and other specialties. Now, the great Roxbury and Brunswick factories are filled with ingenious machinery, and the product comprises millions of boxes, big and little, morocco or plush, wood or paper, for jewels or humbler uses; shipping and merchandise tags, of all sizes; tissue-papers of all colors; jewelers' and absorbent cotton; gummed labels and gummed paper; sealing wax; and a vast variety of stationers', apothecaries', jewelers', and household sundries. One product of this house, known in every hamlet in the country, and almost the world over, is the "Dennison Tag." This house was and is the original and chief producer of the tags so generally used. The plants of this great corporation are now valued at upwards of $1,000,000, and the pro-



BOSTON (ROXBURY): DENNISON MANUFACTURING CO.

ducts of their various factories are sold at wholesale and retail in large and complete stores, established and conducted by themselves, in Boston, New York, Philadelphia, Chicago, Cincinnati, and St. Louis.

Although hoisting-machinery has been in common use during the last century, the high-speed passenger-elevator is of a comparatively recent date, and is the result of the demand for rapid transit to the upper stories of the lofty buildings which are constructed to give increased store and office room in the centres of our large cities. Here the land is of great and increasing cost, but it would be of far less value were it not for the elevator service, which lands the passenger at the desired point without fatigue or loss of time. Among the earliest and most prominent manufacturers of passenger and freight elevators the Whittier Machine Company of Boston holds an important and honorable position, not only as having been one of the pioneers in the business, but as having kept in the front rank of progress in the design and construction of the safest and most efficient forms of apparatus. The foundation of their business was laid in 1839, when Campbell, Whittier & Co. began their iron-working industry in Roxbury. The company now has two large plants, one at Roxbury and one at South Boston, employing 500 men. In addition to the elevator branch of their business, they manufacture steam-boilers, boiler-plate work, and general machinery, and the "Gaunt Evaporators," for use on sugar-plantations and in pulp-mills, and wherever an effective method of economically evaporating large quantities of liquid is desired. The Whittier elevators are used in Boston in the new Exchange Building, the Massachusetts-Hospital Life Building, on State Street, the Adams Building, on Court Street, the American Bell Telephone Building, on Milk Street, and other structures; in New York, in Tiffany's, on Union Square, the Hemenway Estate, on Broadway, and the Welles Building, on Broadway; in Philadelphia, by William G. Warden and others; in Baltimore, by the Chesapeake & Potomac Telephone and Telegraph Company; in Washington, in the Pension Building, Gen. Henry Strong's building, and the Pacific Building; in the De Soto Hotel, at Savannah; the Endicott Building, at St. Paul (Minn.); the Kittredge Building, at Denver (Col.); and in a great number of other structures erected by the largest capitalists and the first architects of the country.



SOUTH BOSTON AND BOSTON HIGHLANDS: THE WHITTIER MACHINE COMPANY.

The origin of the business of the Walworth Manufacturing Company was due to the conviction that in this climate there was need of a better method of warming and ventilating buildings, involving the use and construction of suitable steam and hot-water apparatus. This house originated the method of warming buildings by the use of wrought-iron tubes, the manufacture and use of malleable-iron steam and gas fittings, cast-iron steam fittings, globe valves, Walworth tapping machines, Walworth die-plates, Stillson wrenches, Stanwood pipe-cutters, Walworth sprinkler heads, and cylindrical horizontal tubular boilers; and originally introduced in this country the system of mechanical ventilation by the use of fans. James J. Walworth and Joseph Nason, comprising the firm of Walworth & Nason, were the founders of steam-fitting by the modern methods, and the great variety of kindred uses of steam in the arts and manufacturing industries, not only in this country but in the world. This firm commenced business in New York in 1841, and a year later in Boston. During the first four years there was no other person or firm in this business in the world. In Boston the successors

SOUTH BOSTON: WALWORTH MANUFACTURING CO.

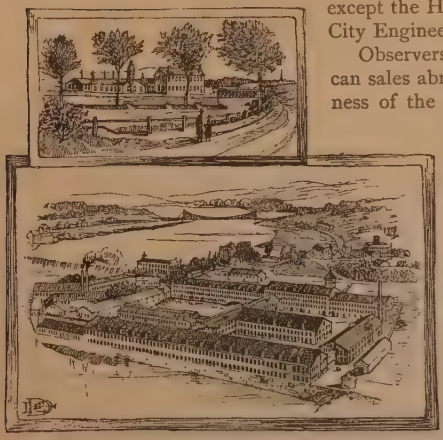
of Walworth & Nason have been J. J. Walworth & Co. until 1871, and the present corporation since that date. J. J. Walworth, who established the business, is the oldest man in the business, and he and his brother, C. C. Walworth, the vice-president and general manager, are still in vigorous health, and at the head of the corporation. The Walworth valves and tools find a ready sale, not only in this country but in England, Germany and other parts of Europe, and also in Mexico, South America, and Australia. The Walworth plant at South Boston covers ten acres, with iron and brass foundries, machine and forge shops, and wharves on tide-water, and employs 600 men, besides 150 in the warehouse, salesrooms and offices in Boston.

Water-works for the public service are in use in scores of Massachusetts cities and towns, greatly to the comfort of the people. In 1800 there were but eight public water-works in the Union, including those at Salem (founded in 1796), Worcester (1798), and Peabody (1799). At present, nearly 2,000 cities and towns in America have public water-works. The water-supply of Boston is drawn from Lake Cochituate, the Sudbury River, and Mystic Lake. The works were begun in 1845, and have cost upwards of $20,000,000. They supply upwards of 40,000,000 gallons daily. A remarkable feature of the aqueduct is the famous Echo Bridge, built in 1876-7, at Newton Upper Falls, where the limpid stream is carried across Charles River on a noble granite structure, 500 feet long. Its main arch is 130 feet in span, 51 feet above the river. There is but one larger arch in America. One of the chief sources of supply for the water-works machinery thus called into service is the George F. Blake Manufacturing Company of Boston, employing 650 operatives in making a great variety of ingenious and powerful pumps, compound, high-pressure, vertical, horizontal, and other forms, calculated for every variety of demand. A book is published by the company, with pictures of these beneficent engines, and elementary features of general practice in water-works. Here also are made the well-known Blake steam-pumps, in scores of forms, for brewers, distillers, bleachers, soap-makers, tanners, oil-refiners, wreckers, miners, for sugar-houses, quarries, plantations, locomotives, artesian wells, irrigation, gas-works, oil lines, air-supply, and many other practical purposes. The George F. Blake Company's works are at Cambridge, and were built in 1889, and are thoroughly equipped and admirably managed expressly for this business.

CAMBRIDGE: THE GEORGE F. BLAKE M'F'G CO.

Many of the most important bridges on the leading New-England railroad routes have been built by the Boston Bridge Works, founded in 1876, by D. H. Andrews. The shops at East Cambridge cover three acres, and employ 300 men, making railway and highway bridges, locomotive turn-tables, travelling cranes, roof trusses, and other heavy wrought-iron or steel structural work. Their work is distinguished not only for excellence of workmanship and material, but also for engineering features, their reputation in all these particulars not being surpassed in America. Among the notable works of this company are the Salmon-Falls and Sugar-River bridges, in New Hampshire; the New-York & New-England Railway bridge across the Connecticut River, at Hartford; and the handsome Harvard Bridge, joining Cambridge and Boston. The heavy girder-spans of the latter were floated from the wharf on pontoons to their places, and then carefully lowered into their positions on the top of the piers by means of valves in the pontoons. All the above bridges were designed as well as built by the Boston Bridge Works,

EAST CAMBRIDGE: BOSTON BRIDGE WORKS.



TURNER'S FALLS: JOHN RUSSELL CUTLERY CO.

except the Harvard Bridge, which was designed by the City Engineer of Boston.

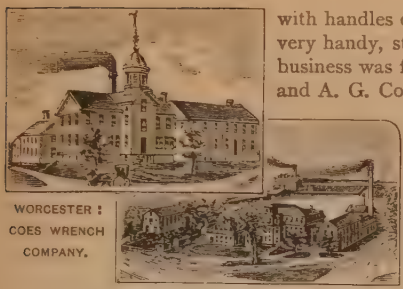
Observers of the cutlery trade state that the American sales abroad are increasing steadily, while the business of the English firms is continually dropping off. Among the great New-England cutlers who have thus broken the monopoly of England's steel centres, none stands higher than the John Russell Cutlery Company, founded at Deerfield, in 1834, by John Russell, who determined to make the classes of goods of which Sheffield had held monopoly for centuries. These immense works are at Turner's Falls, on the Connecticut River, and are said to have cost over a million dollars. They cover six acres of floor space, wherein 650 men are kept at work making table and pocket cutlery, to the number of over 5,000,000 pieces yearly. The yearly consumption of steel is 500 tons, with 250 tons of cocobola and granadilla woods, ebony and ivory, stag-horn and bone. This is the oldest and largest American house making table-cutlery, and has practically no rivals in its fine pearl, ivory, plated, and other fine cutlery; knives for hunters and butchers, painters and druggists; and Barlow's and other pocket-knives. The 3,500 distinct varieties of articles made here include also a vast number of silver-plated spoons and forks. The "John Russell" goods are made to meet the requirements of the most fastidious tastes.

The old-fashioned drill for metal was made by simply pointing a flat piece of steel of the required size. Later, the points of such drills were slightly twisted. These drills did not, however, have a satisfactory cutting edge, and were not at all accurate as to size. By the invention of the Morse Straight Lip Increase Twist Drill, made from a round piece of steel turned to the size desired, and having the twist or groove cut out of the solid stock, these difficulties were overcome, Thus in 1864 was started at New Bedford, by the Morse Twist Drill and Machine Company, a new industry, the products of which are now universally used, and are indispensable in all metal-workers' shops. This company has a capital stock of $600,000, and employs 250 hands. It possesses a large and thoroughly equipped plant, where are manufactured with great accuracy and precision drills varying in size from a cambric needle to four and a half inches in diameter. In addition to drills for use in steel, iron, brass, and wood, they make chucks, reamers, taps, dies, and other kindred tools. These products are distributed throughout the world; and regular agencies are maintained in Australia and Great Britain, and on the continent of Europe.

NEW BEDFORD: MORSE TWIST DRILL AND MACHINE CO.

BOSTON: MUSEUM OF FINE ARTS.

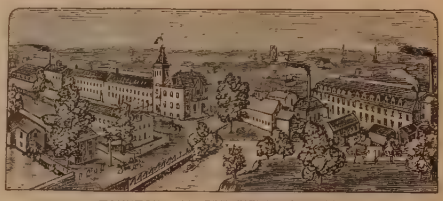
In a pleasant suburb of Worcester are the two separate works of the Coes Wrench Company, a well-known concern devoted to the manufacture of knife-handle wrenches, under valuable recent patents. They are of case-hardened wrought-iron,



WORCESTER: COES WRENCH COMPANY.

with handles of southern dog-wood or persimmon, making a very handy, strong, and powerful tool for general use. The business was founded in 1841, by the brothers, Loring Coes and A. G. Coes, who received their first patent on wrenches in that year. In 1888 the Coes Wrench Company was formed, under the presidency of Loring Coes. The works now employ 100 men, and make daily more than 1,500 wrenches, which are sent all over the world, and are recognized by the trade as the highest grade made anywhere. Loring Coes & Co. also manufacture a great number of shear-blades and knives, at separate works, near the wrench factories.

A great industry which has made Taunton famous everywhere is that of the Albert Field Tack Company, which makes its sales under the title of A. Field & Sons, and is the oldest and largest and finest tack-works in America. This business was begun in 1827, by Albert Field, with a single machine, whose product he himself used to carry up to Boston for sale. In 1855 he admitted his sons to partnership, which, in 1869, became a corporation, with $250,000 capital. The plant includes a long range of brick buildings, with hundreds of ingenious machines for making tacks, saddle-nails, wire-nails, eyelets, glaziers' points, and shoe-tips, varying from six-inch wire-nails down to copper tacks 4,000 to the ounce. They use 15 tons of metal, and make 60,000,000 pieces daily, being by far the largest output in America. Immense exportations are made to Australia and Africa, as well as Europe and Asia, and to the company's warehouses at New York, Philadelphia, Baltimore, Chicago, and San Francisco. There are 400 people engaged here, making tacks for card-clothing and carpets, for saddles and shoes, for pictures and mirrors, for trunks and pails, for gimp and lace, for slating and roofing, for upholstering and tufting, for miners and glaziers, and every other conceivable purpose for which tacks and small nails are used. They are made of copper, Swedes iron, brass, zinc and tinned iron.



TAUNTON: ALBERT FIELD TACK CO.

The largest chair-manufacturing concern in the world is Heywood Bros. & Co., of Gardner, which was founded in 1826, by four brothers, Levi, Walter, Benjamin F., and William Heywood. The little frame building then erected, and provided with a slender water-power, has developed into a mighty industry, covering 15 acres of ground and 20 acres of floor-space, employing 2,000 persons, and making more than a million chairs a year, of cane and wood, reed and rattan. They have factories at Gardner, Chicago, San Francisco, Los Angeles and Portland (Oregon), and great warehouses in New York, Boston, Philadelphia, and Baltimore, as well as at the above-named points on the Pacific Coast. Its products are exported to all parts of the world, and include every imaginable variety of modern chairs. The Heywoods are not only the largest manufacturers of chairs, but they are also the leading house of the whole country in three other important industries, children's carriages, rattan and reed furniture and cane, the furniture and carriages being made in an endless variety and enormous quantity. The modest quietness with which the Heywoods have conducted their business would never

GARDNER: HEYWOOD BROS. & CO.

lead outsiders to suppose their plant was worth millions of dollars, and that their yearly product reached several millions in value.

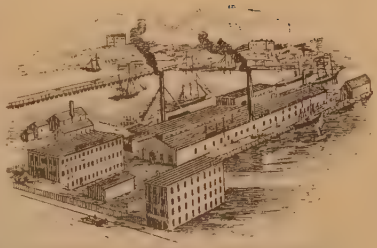
LOWELL: LAMSON CONSOLIDATED STORE SERVICE CO.

The business of cash-carrying apparatus was originated by William S. Lamson, of Lowell, who first conceived the idea of transferring cash and parcels by mechanical means, and doing away with cash boys. This apparatus was put into his own stores in Lowell. In 1881 the apparatus was improved and put upon the market, the "Cash Systems" (as they are called) being leased to merchants. The Lamson Cash Carrier Company, formed in 1881, was merged in 1883 into the Lamson Cash Railway Company, with a capital of $1,000,000. In 1888 the Lamson Consolidated Store Service Company was formed, with a capital of $4,000,000. The devices put out by these companies were rapidly introduced throughout the country, as they effected great savings in time, and proved to be a great convenience and a very satisfactory method of handling cash and parcels. At this time over 3,000 merchants are using the different systems for cash and parcel carrying manufactured by this company. Several competitors have arisen, but those that have proved to have devices of value have been absorbed by the Lamson Company, which has also improved constantly its own apparatus. The company also manufactures cash-registers, used for the better protection of merchants by indicating publicly all cash receipts. The works in Lowell consist of two large factories and other buildings, occupying three acres. The company also has a factory in New York, and agencies and repair shops in many cities.

NORTHAMPTON; BELDING BROS. & CO.'S SILK-MILLS.

Among the manufacturers of Massachusetts whose products merit special mention is the Putnam Nail Company, whose horse-nail factory, situated on the banks of the Neponset River, in Boston, covers a space of ten acres, and furnishes employment for 400 people. They produce a horse-nail which is unique, in that it is hot-forged directly from Swedish iron rods in a shape perfectly adapted for use in fastening on horse-shoes. This process is specially commendable because it completely obviates the possibility of splitting when driven, which is characteristic of other nails. This concern is the pioneer in the line of machine-made horse-nails, and is the only one which manufactures a hot-forged nail. All other nails are made by the cold-rolling and clipping process, and are oftentimes dangerous to the horse in whose feet they are driven. At the Centennial Exposition in Philadelphia, the Putnam hot-forged nail received the highest award; and the verdict of popular opinion has been growing more and more strong in its favor ever since. The Putnam Nail Company was incorporated in 1877, and has a capital of $300,000, besides large reserves, and a business extending throughout the Union, and also to England, Australia, China, and other foreign countries. Its product exceeds the united output of any other three companies, and equals 2,500 tons a year, in 35 styles and sizes. The business was founded in 1859, and supplied the cavalry horses in the war of 1861-5.

BOSTON (NEPONSET): PUTNAM NAIL WORKS.



EAST BOSTON: BOSTON & LOCKPORT BLOCK CO.

The proper making of tackle-blocks, so that they shall be strong, durable, and adapted to their uses, is a department of work in which skilful Bay-State workmen have achieved unusual success. The chief establishment in this line in America is the Boston and Lockport Block Company, whose factories are at East Boston (Mass.) and Lockport (N. Y.). Here is made the vast majority of all the tackle-blocks used in this country. Many of these are covered by special patents. The self-adjusting five-roller bushed tackle-blocks, for durability and for ease of hoisting excel everything in this line, and received a gold medal from the Massachusetts Charitable Mechanic Association, in 1890. The Batts Patent Differential Hoist, by means of which one man can hoist full capacity even up to ten thousand pounds, is probably the simplest and most durable hoist in the market, and is used by bridge-builders, machine-shops, and others. This, too, was awarded a gold-medal by the Mechanic Association. Their Metaline Bushed Block is self-lubricating, and was the first of its kind ever introduced to the public (by this firm, in 1876). The tackle-blocks made by this company are sold over a wide territory, not only throughout this country, but many foreign countries. Their uses are unlimited for all hoisting purposes. The Boston & Lockport Company was incorporated in 1887, with a paid-in capital of $300,000, and was a consolidation of the Bagnall & Loud Block Company of Boston (established in 1840) and the Penfield Block Co., of Lockport (N. Y.). The success of this establishment has been due mainly to its superior quality of goods, with thoroughly trustworthy workmanship. The five-pointed star, which is the patented trade-mark, is always indicative of the best grades.

BOSTON: JOHN L. WHITING & SON.

Massachusetts holds the supremacy in brush making; and the most complete brush-factory in the world is that of John L. Whiting & Son, in Boston. It is near the site of old Fort Hill, and is a large handsome brick building, with an acre and a half of floor space, especially erected by this firm in 1884, for its own business, which has been a marked success from its founding in 1864. The notable features of this business are the number and variety of new machines and original processes introduced by the Whitings, and the large corps of skilled brush-makers employed, ensuring an excellent uniformity of product, and a vast output, besides an absolute reduction in the prices of staple brushes. There are 500 men engaged in these works; and the product includes an immense variety of brushes for painters, varnishers, and white-washers, besides finer articles for artists, and many for household use. The Whiting products are sent to all parts of the Union, and also to various foreign countries, wherever brushes are used.

Asbestos is a mineral of many uses. It is indestructible by any degree of heat or any ordinary acids; hence, for fire-proofing and non-conducting it is invaluable. It is a species of rock, usually found in connection with serpentine, but it possesses fibres and textures as delicate as silk. Until the discovery of mines at Thetford, in Canada, and their successful working by modern machinery by the Asbestos Packing Company of Boston, the chief supply came from the mountains in Italy. While there is found an abundance of poor grades, the Canadian mines are the main source of the best qualities. Early in this century asbestos

BOSTON: ASBESTOS PACKING CO.

SOUTHBOROUGH: ST. MARK'S SCHOOL.

came to be utilized, and since then many patents have been granted for peculiar forms, special uses, and machinery and tools for its manufacture. The Asbestos Packing Company was the pioneer manufacturer in the United States of asbestos packing, now in extensive use, and invaluable where superheated steam or acids are used. Asbestos goods include rope, wick, and sheet-packing; refined fibre; mill board, in rolls and sheets; gaskets, cloth, tape, rings, print-roller cord, twine, tubes, sheathing, wire-board, roofing, cement, felting, stove-linings, and furnace, retort and stove cements. The main uses of asbestos are for steam-packing, covering steam boilers and heated pipes, sheathing walls, lining floors, and covering roofs. By its use destruction by fire is averted and transmission of noises prevented. It is of exceeding value as a non-conductor of electricity. The technical treatment of asbestos has reached its highest development by the Asbestos Packing Company and its closely allied concerns, whose chief factory is at Charlestown, and whose main offices are in Boston, with branches in New York, Philadelphia, Chicago, and London. The business of supplying this valuable mineral is conducted here with scientific skill and ability, and has built up a large and interesting industry.

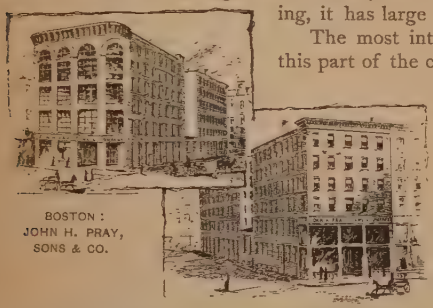
Throughout all New England the name of "Jordan-Marsh" is a sort of magic talisman to people of all classes, calling up visions of one of the greatest departmental stores in the world, bright with silks and ribbons, dainty with fine laces and embroideries, and rich in all manner of house-furnishings, and coverings for head and feet and body. Eben D. Jordan and the late B. L. Marsh, founded this establishment, in 1841, in an obscure part of Boston; and in the intervening period the business has increased, year by year, until it now reaches $18,000,000 annually, and occupies one of the largest and handsomest series of buildings on Washington Street, the main thoroughfare of Boston. Jordan, Marsh & Co. began their career as a dry-goods house, and the bulk of the trade still remains in that line; but scores of other departments have been added, until now their establishment, covering several broad stories, and ten acres of flooring, and with entrances on three streets, is a veritable bazaar of hundreds of lines of goods, visited by myriads of purchasers every day, and conducting also a large business by mail, and an important wholesale trade. Jordan, Marsh & Co. employ 2,800 people in their buildings; and have a large corps of travelling salesmen, and an army of working people manufacturing expressly for them.

BOSTON: JORDAN, MARSH & CO.

BOSTON: MACULLAR, PARKER & CO.

The first settlers along the Atlantic shores wore the picturesque garments common in the England of their period: the short cloak and doublet, plaited ruffs or falling collar, long silk stockings and heavy boots, with high felt hats for out-door use, and velvet skull-caps for home wear. About the middle of the last century the gentry of the province wore cocked hats, wigs, and red cloaks, and in winter buckram-lined round coats coming down to the knees. These in turn gave way to the embroidered satins and velvets, gold-lacings and jeweled garments of our ancestors, shown in Copley's portraits. The manufacture of clothing, now one of the great industries of Massachusetts, is conducted by nearly 600 establishments, employing 5,000 men and

16,000 women, with an annual wage-account of $6,000,000, and an annual product of $28,600,000. Macullar, Parker & Company is an ideal house in making and selling clothing for men and boys, and occupies admirably arranged buildings in the chief retail quarter of Boston, facing on 398 and 400 Washington Street, with a handsome classic façade of white marble. In the six stories of this edifice, and also the building adjoining, and the similar one back of it, covering two acres of flooring, 600 persons are kept busy, making fine grades of clothing, out of the best materials, and in the most thorough manner. This famous concern, one of the best-known in Massachusetts, was founded in Worcester, in 1849, and moved to Boston in 1852. It has a prosperous branch in Providence, and offices at New York, Chicago, and London; and besides its vast output of ready-made clothing, it has large custom and wholesale cloth departments.



BOSTON: JOHN H. PRAY, SONS & CO.

The most interesting and important carpet-warehouse in this part of the country is that of John H. Pray, Sons & Co., of Boston, founded in the year 1817, and now doing a business of $3,000,000 a year. Their great six-story building has on the ground-floor, upholstery and Oriental and Persian rugs; on the second, the carpet sales-rooms, and exhibition-rooms for Aubussons, Axminsters, and Wiltons; the third, fourth and fifth floors are for storing, and wholesaling; and the sixth for cutting and sewing carpets. From this wonderful stock were obtained the carpets for Trinity Church, the Algonquin Club, the United-States Treasury building at Washington, and many other great edifices, besides thousands on thousands of American homes. There are 300 persons in the employ of the company, whose Boston store alone covers 2½ acres. The standard American carpets of the Lowell Carpet Company are sold here in immense quantities, while another class of needs is satisfied by the company's importations of China matting from Hong Kong and Canton, amounting to 15,000 rolls yearly.

Over half a century ago, in 1840, Oliver Ditson founded the music-publishing business which now bears his name. In 1845 John C. Haynes came, fresh from school, to be the store-boy, rising twelve years later to partnership. Mr. Ditson died in 1888, after which the Oliver Ditson Company of Boston was incorporated. From insignificant beginnings this business has extended mightily, until now it publishes more than 75,000 pieces of sheet music, 2,200 musical books, a large number of biographies of musicians, and a variety of kindred works. They have bought out the catalogues of many of the foremost competing houses, and for many years have stood far in the lead of the music-publishing business of America. The affiliated house of John C. Haynes & Co. (in Boston) is chiefly devoted to the sale of musical instruments, in two stores, carried on by them; and has a large manufactory for making guitars, banjos, and mandolins. The corporation has prosperous branch-houses — complete establishments in themselves — in New York and Philadelphia, and has close connections with Lyon & Healy, the great Chicago music-house. The Ditson establishment has been an important helper in the advance of musical culture, having published important operas and oratorios by home composers. They brought out the first American editions of Mendelssohn's Songs without Words, and Beethoven's Sonatas. Richardson's *New Method for the Piano-Forte* was published by this house in 1858, and nearly half a million copies have already been sold.

BOSTON: OLIVER DITSON CO.

An important agency in building operations throughout this region is the making of brick, for so many years the favorite material for substan-

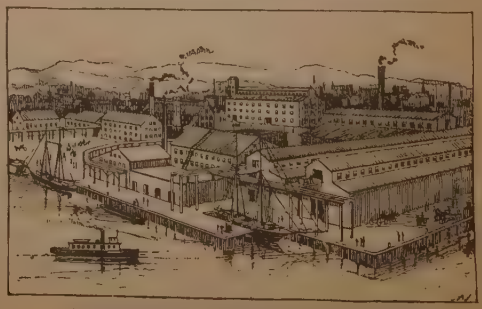
GLENWOOD: NEW-ENGLAND ANDERSON PRESSED BRICK CO

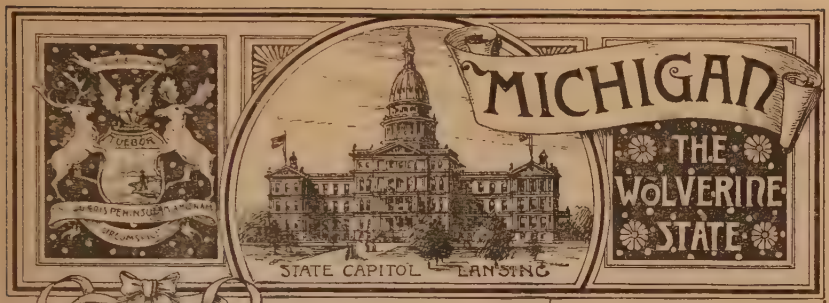
tial structures. The New-England Anderson Pressed Brick Company was organized in 1886, for the purpose of manufacturing plain, shape and ornamental pressed brick, under a license from J. C. Anderson (the patentee), "for all the New-England States, except Connecticut." Their works are on the Medford branch of the Boston & Maine Railroad, three miles from Boston, and cover several acres. They manufacture all the various grades of fine pressed brick, for which the Anderson system is so widely celebrated, and some of the best buildings erected in New England during the past three years have been constructed or ornamented with these brick, including prominent edifices in nearly 100 cities and towns of New England and the Provinces. This is one of the three great Anderson Pressed Brick Works, the others being at New York and Chicago, and the reputation of their product is known in Europe and throughout this country. The processes are described in the Illinois chapter.

The placing of all kinds of furnishings in the homes of the people keeps many large establishments busy from one year's end to the other. One of the most interesting in its methods is that of B. A. Atkinson & Co., who sell vast quantities of furniture on the easy payment or instalment system. Their stores cover over 25 acres of floor-space, and are the largest and best-arranged in their line in America. They employ 350 persons, 80 horses, and 44 delivery-wagons; and have 15 branches, in as many New-England cities. The concerns are worth above $1,500,000, and their sales reach over $2,500,000 a year. Mr. Atkinson began life as a sailor-boy; and at the age of 16 he founded the present business, which he has built up and still controls. There is hardly an article used in housekeeping, from carpets and mattresses to crockery and glassware, through all grades and classes of furniture, that is not kept in stock in this great bazaar.

BOSTON: B. A. ATKINSON & CO.

The Bradley Fertilizer Company was established in 1861, by Wm. L. Bradley, who is now its President. The business of the Bradley Fertilizer Company has steadily increased through the genuine merits of the goods they have produced, until to-day they are the largest manufacturers of fertilizers in the world, and employ over 1,200 persons. At their factories, at North Weymouth, they produce a series of fertilizers prepared from the finest quality of raw materials, selected with especial reference to their crop-producing powers, and combined in such proportions as the practical experience of over a quarter of a century has demonstrated are needed in order to produce the best results. The continued use of their fertilizers by successful farmers, and their largely increasing sales every season, prove conclusively that their productions are all they are represented to be, and rightly hold the first place among the many brands of fertilizers. The wonderful success of the Bradley fertilizers is largely due to comprehensive and exhaustive field-tests of plant-foods in various form and proportions on the large farms owned by the company and its stockholders.


NORTH WEYMOUTH: BRADLEY FERTILIZER WORKS.



HISTORY.

A temporary mission was founded at the Sault Ste.-Marie, in 1641, by the Jesuit fathers, Jogues and Raymbault, for the salvation of the Chippewas. In 1668 Father Marquette renewed the mission; and three years later he founded St. Ignace, for the Hurons, on the northern shore of the Straits of Mackinaw, "the key and gate for all the tribes from the south." Within a few years this became a French military post, with a garrison of 200 soldiers, and Indian villagers numbering 6,000.

Less enduring fortresses were established by La Salle, at St. Joseph, and by Du Luth, at the outlet of Lake Huron. Cadillac and 50 French soldiers, in 1701, founded Fort Pontchartrain, at Detroit, anticipating Lord Bellomont's design to occupy the place with British troops. For a century the peninsula was traversed only by *coureurs de bois* and fur-traders, while the little farming colony of French people in the southeast dreamed away its tranquil and joyous life. In 1760–1, after the conquest of Canada, British garrisons occupied Detroit, Michilimackinac, Sault St.-Marie and St. Joseph. Soon afterwards the great chief Pontiac raised the Western country against its new masters, destroying Michilimackinac and other forts and their garrisons, and besieging Detroit for many weeks. Afterwards Detroit became the capital of the vast northwestern territories of England; and during the Revolution Gov. Hamilton led Anglo-Indian armies thence on forays far into Kentucky and Virginia, until George Rogers Clark captured him at Vincennes. The fortress remained under British control until 1796, when, as a result of Jay's treaty, Gen. Wayne's troops replaced the red-coat garrison. When the War of 1812 broke out, Michigan had a double frontier imperilled, with the British on one side and the Indians on the other; and Gen. Brock, with 1,300 British troops, compelled the unfortunate Gov. Hull to surrender

STATISTICS.

Settled at	Detroit.
Settled in	1670
Founded by	Frenchmen.
Admitted as a State,	1837
Population, in 1860,	749,113
In 1870,	1,184,059
In 1880,	1,636,937
White,	1,614,560
Colored,	22,337
American-born,	1,248,429
Foreign-born,	388,508
Males,	826,355
Females,	774,582
In 1890 (U. S. census),	2,093,889
Population to the square mile,	28.5
Voting Population,	467,687
Vote for Harrison (1888),	236,387
Vote for Cleveland (1888),	213,469
Net State debt,	$4,148,723.68
Assessed Valuation of Property (1890),	$945,450,000
Area (square miles),	58,915
U. S. Representatives (1893),	12
Militia (Disciplined),	2,434
Counties,	84
Post-offices,	1,923
Railroads (miles),	7,243
Vessels,	1,110
Tonnage,	276,750
Manufactures (yearly),	$150,692,025
Operatives,	77,591
Yearly Wages,	$25,318,682
Farm Land (in acres),	13,869,221
Farm-Land Values,	$199,103,181
Farm Products (yearly)	$91,159,858
Public Schools, Average Daily Attendance,	279,900
Newspapers,	690
Latitude,	41°42′ to 48°22′ N.
Longitude,	82°86′ to 90°30′ W.
Temperature,	—33° to 101°
Mean Temperature (Detroit),	47°

TEN CHIEF CITIES AND THEIR POPULATIONS (CENSUS OF 1890).

Detroit,	205,876
Grand Rapids,	60,278
Saginaw,	46,322
Bay City,	27,839
Muskegon,	22,702
Jackson,	20,798
Kalamazoo,	17,853
Port Huron,	13,543
Battle Creek,	13,197
Lansing,	13,102

ST. IGNACE.

Detroit, and the Territory with it, while Mackinac fell into the hands of another invading force. After Com. Perry captured the British fleet on Lake Erie, he took on his ships Gen. Harrison's Army of the West, which re-won Detroit, and broke the hostile power at the battle of the Thames. When peace came, the Territory shut out Canadian traders, and Astor's American Fur Company occupied Mackinac. Gov. Cass made treaties with the Indians, and transferred most of them beyond the Mississippi; and in 1817 the surveyed public lands were offered for settlement. Then the great immigration from Ohio, New York and New England set in, especially after the opening of the Erie Canal, in 1825. In 1800 the population was but 500, but by 1830 it had risen to 31,639. When the steamboat *Walk-in-the-Water* reached Detroit and Mackinac, in 1818–9, the amazed Indians were made to believe that it was drawn by teams of trained sturgeons. By 1830 daily boats were running between Detroit and Buffalo, and pioneers began to pour into the fertile southern counties in every direction.

Michigan remained in the Territory Northwest of the River Ohio from 1787 until 1800, when it was divided near the longitude of Lansing, the eastern part remaining in the Northwestern Territory, and the rest being included in Indiana Territory. Two years later, all Michigan lay in Indiana; and in 1805 Michigan Territory came into being, covering the Lower Peninsula, part of the Upper Peninsula and strips of northern Ohio and Indiana. In 1816 the Indiana strip was taken off. In 1818, Michigan spread over Wisconsin, the Upper Peninsula, and Minnesota east of the Mississippi; and in 1834, the rest of Minnesota, Iowa, and Dakota east of the Missouri and White-Earth Rivers were added to it. Then began the period of curtailment, and in 1836 Michigan was cut down to nearly her present area, preparatory to assuming Statehood the next year as the thirteenth of the new commonwealths. The little strip of northern Ohio, including Toledo and Maumee Bay, and covering 600 square miles, was held with great tenacity by Michigan, and the militia of the two States prepared to do battle for it on the plains of Toledo. A compromise was finally effected by ceding to the young commonwealth the Upper Peninsula, in exchange for the disputed territory.

The Michigan contingent in the late civil war was 90,747 men, in 31 regiments of infantry and eleven of cavalry, companies of sharpshooters and engineers, 14 batteries, and several other commands. Of these soldiers, 4,207 were killed or mortally wounded, and 10,136 died of disease.

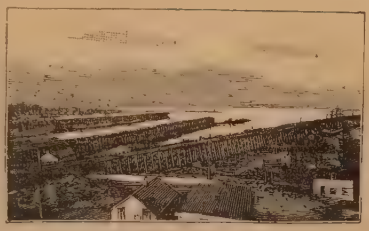
The Name of the State is derived from the Chippewa words, *Mitchi*, "Great," and *Sawgyegan*, "Lake," applying to the fresh-water sea on the west. The popular nickname is THE WOLVERINE STATE, on account of the great number of these animals once found here.

LAKE ST.-CLAIR CANAL.

The Arms of Michigan bear a hunter, with the rising sun in the background. Above is the Latin word *Tuebor:* "I will defend," with E PLURIBUS UNUM still higher; and the motto (given by Lewis Cass) is SI QUÆRIS PENINSULAM AMŒNAM, CIRCUMSPICE, "If you seek a pleasant Peninsula, look around you." The crest is an eagle.

The Governors of Michigan have been: *Territorial:* Wm. Hull, 1805–13; Lewis Cass, 1813–8; Wm. Woodbridge (acting), 1818–20, 1823–5, 1826–8; Jas. Witherell (acting), 1830; John T. Mason (acting), 1830–1; Stevens T. Mason (acting), 1831; Geo. B.

Porter, 1831; Stevens T. Mason (acting), 1831–4; John S. Horner (nominal), 1835. *State:* Stevens T. Mason, 1835–8; Edward Mundy (acting), 1838; Wm. Woodbridge, 1840–1; Jas. Wright Gordon (acting), 1841; John S. Barry, 1842–6; Alpheus Felch, 1846–7; Wm. L. Greenly (acting), 1847–8; Epaphroditus Ransom, 1848–9; John S. Barry, 1850–1; Robert McClelland, 1852–3; Andrew Parsons (acting), 1853–4; Kinsley S. Bingham, 1855–8; Moses Wisner, 1858–60; Austin Blair, 1861–5; Henry H. Crapo, 1865–8; Henry P. Baldwin, 1869–72; John J. Bagley, 1873–6; Chas. M. Croswell, 1877–80; David H. Jerome, 1881–2; Josiah W. Begole, 1883–4; Russell A. Alger, 1885–6; Cyrus G. Luce, 1887–90; and Edwin B. Winans, 1891–2.



MARQUETTE: ORE DOCKS.

Descriptive.—Michigan is the most irregular in outline of all the States, with a prodigious coast-line on the Great Lakes and their bays. It is made up of two peninsulas, widely different in characteristics, and separated by the Straits of Mackinaw. The Lower Peninsula is larger than the Upper Peninsula, and forms the western shores of Lakes Huron, St.-Clair and Erie, and the eastern shore of Lake Michigan. The Upper Peninsula lies between Lakes Huron, Michigan and Superior. The State is larger than New York, Pennsylvania, or Ohio. Lake Huron, 270 by 160 miles in area, covers 20,000 square miles, 581 feet above the sea, and contains 3,000 islands. It has an average depth of 300 feet, and a maximum depth of 1,800 feet. Fierce gales often sweep across the wide expanse between Saginaw Bay and Georgian Bay; and voyagers are out of sight of land during part of their transit. Saginaw Bay and Thunder Bay are its chief American embayments; and at Sand Beach the Government has made a fine harbor, with long breakwaters. Lake Michigan is the largest lake wholly in the United States, being 360 by 108 miles in area, and covering 20,000 square miles. It is 581 feet above the sea; and its greatest depth exceeds 900 feet. Green Bay and its extensions open away on the west, and the Great and Little Traverse bays on the east, with the estuaries of many rivers, formed into artificial harbors. Much of the coast is lined with high sand dunes, shifting with the gales, and burying forests and fields. There are daily tides of 1½ inch. In the northern part of the lake lie the Manitou Islands, covering 1,000 square miles, and with 1,300 inhabitants. Beyond these island-groups, the lake narrows down to the Straits of Mackinaw, four miles across, and opening into Lake Huron. Lake Superior, the largest body of fresh water in the world, with its area of 360 by 140 miles, and its depth of 1,800 feet, covers an area of 32,000 square miles, between rugged and irregular coasts of rocks and sand, 1,500 miles around. The French missionaries likened its shape to that of a bended bow — the north shore being the arc, the south shore the cord, and Keweenaw Point the arrow. Two hundred small streams empty into this inland sea, and scores of islands rise from its clear waters, 627 feet above the sea. These noble lakes give Michigan a coast-line of 1,624 miles, along which 2,000-ton vessels may pass without going out of sight of land. They constitute one fourth of the fresh water on the globe, and their Michigan shores are beaconed for navigators by 120 lights and many fog-signals.

MACKINAC.

Michigan has more shipping than any other Western State. Its fleet includes 400 steamboats; and the total tonnage reaches 150,000. A large commerce is carried on with the Canadian ports, as well as with the American lake-cities. Detroit and Port Huron are the chief shipping-points, with imports and exports exceeding $10,000,000

yearly. The State also has the most important fresh-water fisheries in the Union, employing 1,700 men, and producing yearly 27,000,000 pounds of fish, valued at $1,500,000. More than half of the catch is of white-fish, a favorite with epicures; and the rest includes herring, salmon, sturgeon, pike, pickerel, bass, perch, lake-trout and eels. Scientific care has been taken in their propagation and protection, and the fish-commissioners have planted over 100,000,000 young fish. Great quantities are sent east in winter, frozen, and command high prices. The commissioners have planted in Michigan waters the salmon of California, the land-locked salmon of Maine, and the carp of Germany, besides grayling, muscalonge and pickerel; brook, salmon, California, Loch-Leven, Schoodic and German trout; wall-eyed pike, black bass, and other valuable food fish. The hatching-stations are at Detroit, Northville, Paris, Petoskey and Glenwood. The chief fishing interests are in Delta, Mackinac and Schoolcraft Counties, in the Upper Peninsula, and on the Manitou Islands. Not only is Michigan bordered by the three chief lakes of America (and of the world), but she also has within her borders over 5,000 mirror-like lakes and ponds, covering more than 1,000 square miles. The islands of Michigan number 179, with an area of over 6,000 square miles.

MACKINAC: ARCH ROCK.

Although the climate abounds in extreme changes, it is healthy and invigorating. The health of the people has improved very much since the beginning of the century, on account of the general cultivation and drainage of the soil.

MACKINAC SCENES.

The Lower Peninsula is 277 miles in length, north and south, and 259 miles in width, and has the shape, according to various authorities, of a bullet, an open hand, a horse-shoe, or, better than all, a mitten. On the south lie Ohio and Indiana; on the east, Lakes Erie and St.-Clair, the connecting rivers, and the great Lake Huron; and on the west, Lake Michigan. It is a region of plains and round-topped hills, with a long valley running across it from Saginaw Bay to Grand Haven. The country north of this remarkable valley was in ancient times a great island. The southern water-shed curves around from Bad Axe to Ann Arbor and Hillsdale; and the northern water-shed is a line of undulating highlands, midway between Lakes Huron and Michigan. In the north these hills attain a height of nearly 1,400 feet. The chief rivers of the Lower Peninsula are the Raisin and Huron, tributary to Lake Erie; the Saginaw (navigable for 40 miles), Au-Sable, Thunder-Bay and Cheboygan, on the Huron side; and the Grand Traverse, Manistee, Muskegon, Grand, Kalamazoo and St.-Joseph on the western side. The Grand is 270 miles long, with 40 miles navigable for steamboats. These streams flow through winding courses down their pleasant and fertile valleys, of little service to navigation (except by timber-rafts), but with good harbors at their mouths, made at great cost by the United-States Government. The chief Lake-Huron harbors are at Port Huron, Sand Beach, Bay City, Saginaw, Alpena and Cheboygan. The Lake-Michigan ports are St. Joseph, Grand Haven, Muskegon, Manistee, Ludington and Traverse City.

GRAND RAPIDS: MICHIGAN MASONIC HOME.

The Lake-St.-Clair Canal, known to sailors as "The Cut," was finished in 1871, at a cost of $650,000, by the United-States Government. This route is traversed every year by 2,000 vessels, with a tonnage of 30,000,000. It is 8,200 feet long, 200 feet wide, and 16 feet deep, and saves shipping from the intricate navigation of the

KALAMAZOO: YOUNG MEN'S CHRISTIAN ASSOCIATION.

old-time narrow and winding channels. The St.-Clair River is a strait, 40 miles long, uniting Lake Huron and Lake St.-Clair, with a current of four miles an hour. Lake St.-Clair is 25 miles in diameter, generally shallow, and bordered with lowlands and fields of wild rice, haunted by water-fowl. The water-surface covers 360 square miles, and averages 20 feet deep. Detroit River, 20 miles long, unites Lake St.-Clair with Lake Erie, and at its mouth is four miles wide. All the traffic passes through the narrow Canadian channel, east of Bois-Blanc Island, the American channel, though broader, being more shallow.

The lakes of the Michigan North Woods and the Grand-Traverse region, Pine Lake, (18 by four miles), Torch, Bear, Burt, Mullet and others, between Traverse City and Cheboygan, abound in game and fish, and are much visited by sportsmen.

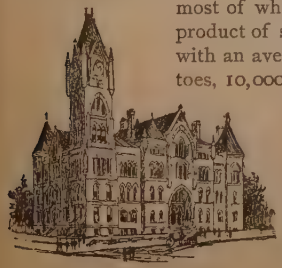
Mackinac is a quaint and antiquated hamlet on an island in the Straits, overlooked by a crumbling fort, and isolated by the wide northern waters from modern activities and excitements. It was founded by the French fur-traders and mission-priests more than two centuries ago, and has suffered from several sieges, Indian, British and American. Astor's American Fur Company made Mackinac its chief depot for 40 years, after 1809. The island is nine miles around, and has been reserved by the United-States Government as one of its National parks. The Arch, Chimney, and Sugar-Loaf Rocks, and other odd bits of scenery, the deep and spicy forests, the noble views over the blue and sea-like lakes; the perpetual coolness and refreshment of the air, and the weird legends which haunt every lonely beach and breezy cliff, have made Mackinac a charming summer-resort in these latter days. Bois-Blanc Island, Point St. Ignace, the Cheneaux Islands and other interesting localities are in this vicinity.

FLINT: INSTITUTION FOR THE DEAF AND DUMB.

Beaver Island was the seat of the Mormon colony of St. James, founded in 1846 by one of the Nauvoo elders, who acted as its priest and king for ten years, when he was assassinated, and the colony disappeared.

The Climate of the Lower Peninsula, moderated by its bordering seas, is several degrees warmer than that of the same latitudes in Wisconsin. The mean temperature is 47.25°, and the annual rainfall reaches 42 inches. The spring and summer rains are heavier than in the Upper Peninsula; the autumn and winter rains are lighter. The mean yearly temperature of Lansing resembles that of Berlin, with the summers of Vienna and the winters of Stockholm. The tempering influences of Lake Michigan, robbing the frequent north and northwest winds of their rigor, have developed a vast and varied flora.

Agriculture.—The average yearly product of wheat in Michigan is 27,000,000 bushels, most of which comes from the southern four tiers of counties. The product of shelled corn varies from 23,000,000 to 27,000,000 bushels, with an average of 21,000,000; of oats, 25,000,000 to 32,000,000; potatoes, 10,000,000 bushels; and clover-seed, 230,000 bushels. The yield of hay is 1,500,000 tons; and buckwheat, barley, rye, and clover-seed are profitably cultivated.



GRAND RAPIDS: CITY HALL.

Dr. Winchell says that the geological strata of the Lower Peninsula are like a nest of bowls, the coal-measures in the middle, and various belts of sandstone, limestone and other formations outside. The soil is a light sandy loam, unproductive in the timber-lands of the north and the sands of the west, but in the south rich and fruitful, and abounding

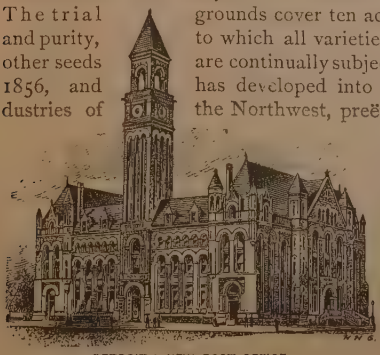
PONTIAC: EASTERN MICHIGAN INSANE ASYLUM.

in corn. The larger rivers have valuable alluvial bottoms, occupied by prosperous farms. The southern counties are famous for cereals and live-stock, and have enormous areas of orchards and fruit-farms. And yet the Surveyor-General of Ohio reported, in 1815, that not more than one acre in a thousand in southern Michigan "would in any case admit of cultivation," and Congress benevolently excluded this alleged desert from its military land-grants.

The upland plains, extending for 200 miles north along the shore of Lake Michigan and with a climate tempered by the water, include one of the best fruit-raising countries in the world. The fruits of Allegan, Van-Buren and Berrien counties bring over $2,000,000 yearly, and include peaches, apples, cherries, plums, strawberries and grapes. In 1872 there were 600,000 peach-trees in southwestern Michigan, but nearly all were destroyed by the yellows, and by severe winters, during the next five years. These have been replaced by new trees; and St. Joseph and South Haven still supply Chicago with choice peaches. The Michigan apples are among the best in America, and upwards of 3,000,000 bushels are sold yearly. Kalamazoo is the foremost locality in America (and perhaps in the world) for the cultivation of celery, having 2,000 acres devoted to this industry.

The successful development of agriculture in the Northwest has been materially aided by the admirable quality of the seeds furnished to the husbandmen. One of the largest seed-houses in the world is that of D. M. Ferry & Company, whose great new fire-proof building, covering half a block in the heart of Detroit, is the most gigantic structure for its uses in the world. Here are the headquarters of 90 travelling salesmen; and nearly 1,500 persons are employed on the seed-farms and in other operations of the company, during the busy season. The seeds raised by these experts are carefully packed into boxes, assorted for different soils and climates; and this enormous product goes all over the continent, thousands of whose farmers send for "Ferry's Seed Annual" every season before the frost leaves the ground. The trial grounds cover ten acres, and are the scene of careful tests for vitality and purity, to which all varieties of vegetables and flowers, grain and grass, and other seeds are continually subjected. This widely known business was founded in 1856, and has developed into one of the most commanding and beneficent industries of the Northwest, preëminently the land of farms.

DETROIT: D. M. FERRY COMPANY.



DETROIT: NEW POST-OFFICE.

The live-stock of Michigan numbers 370,000 horses, 348,000 milch-cows, 380,000 cattle, 460,000 hogs, and 2,000,000 sheep. The latter yield 12,000,000 pounds of wool yearly. Forty-five thousand colonies of bees produce 750,000 pounds of honey every year, from the abounding flowers which adorn the broad plains of the Lower Peninsula.

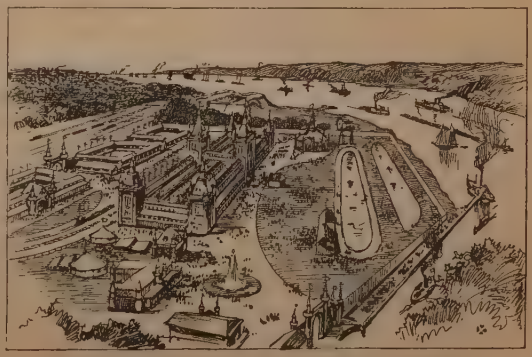
Minerals.—The manufacture of salt in Michigan began in 1860, and by 1880 reached over

MARQUETTE: THE POST-OFFICE.

12,000,000 bushels yearly. This great industry centres about Saginaw Bay, where multitudes of salt-wells have been sunk, and about Manistee. Most of the brine is evaporated by the waste steam of the lumber-mills. The saline region covers 8,000 square miles, and is inexhaustible, the output even now being greater than that of New York, with careful inspection and high grading. In 1888, 4,240,000 barrels of salt were produced; and in all over 50,000,000 barrels have been sent from these wells.

Coal underlies 6,700 square miles of Michigan, the chief veins being from two to five feet thick, and far underground. It is of inferior quality, containing hardly 50 per cent. of carbon, light, friable and slaty. It is highly bituminous, but not pure enough for smelting, for which coal is brought from Ohio and Pennsylvania. The chief coal-mines are near Jackson and Corunna, in the centre of the Lower Peninsula. There are large grindstone quarries at Grindstone City, on the tip of the thumb of the Lower Peninsula, where 200 men cut and chip the stones to the desired size, after which they are hung and turned in the mills. It is a very fine grit, soft and wet when fresh, but growing hard and dry on exposure. The quarries were opened in 1838. Their product goes to Detroit and Chicago, by water. The State produces 54,000 tons of land-plaster yearly, and 170,000 barrels of stucco. The quarries are near Grand Rapids and Alabaster, in thick beds of white, rose and gray gypsum, which is broken, crushed, pulverized and ground like flour. Near Jackson there are large deposits of fire-clay, used for sewer-pipe, drain-tile and similar wares, of which over 30,000 tons are made here every year. Among other mineral products are the white statuary marble of Menominee; the red and yellow ochres of St. Mary; the mottled, buff, white and gray freestones of Ionia, Stony Point, Parma and Point aux Barques; the fine slates of Huron Bay; the limestones of Little Traverse and London; and the glass-sand of Ida, six miles from Monroe, from which excellent plate-glass is made.

The so-called magnetic waters of Michigan (which are, indeed, not magnetic) were developed about the year 1870. The fountains at Eaton Rapids, Hubbardston and Leslie Wells are calcic. The Butterworth Springs at Grand Rapids resemble those of Bath. The Alpena Well is remarkably rich in sulphuretted hydrogen. The Spring-Lake and Fruit-Port wells have strong saline waters, much visited by people from Chicago. The Fruit-Port water resembles that of Kreuznach, in Prussia. The Owosso Spring is chalybeate. The St.-Clair is a valuable saline spring, near the city of St. Clair. The St.-Louis Well, in Gratiot County, is a simple alkaline water, ameliorating dyspepsia, neuralgia and rheumatism. The Medea Springs, at Mt. Clemens, are hot waters, used in bathing. The Ypsilanti Springs are now attracting many patients. There are several other mineral springs in the State, with hotels and other conveniences.



DETROIT: INTERNATIONAL FAIR AND EXPOSITION BUILDING.

The production of lumber has been a leading industry ever since the opening of mills in the Saginaw Valley, in 1832. In the ten years, 1867–77, the Saginaw Valley produced enough

LUMBERING IN MICHIGAN.
ALGER, SMITH & CO.
MANISTIQUE LUMBERING CO.

lumber to put a walk 44 feet wide around the earth at the equator. These mills turned out, in 1865–80, the enormous quantity of 8,857,951,171 feet of lumber. The prairies and oak-openings of the southern counties are succeeded by broad forests of hardwood, along the rivers, and these by illimitable pineries in the north. The Upper Peninsula is almost entirely covered with forests, not yet so seriously attacked as those of the south. This vast product is shipped by water to the various lake-ports, and distributed thence by railway. Two thirds of the lumber used in New York and Philadelphia comes from Michigan. Since 1879 the yearly production of the Saginaw Valley has risen from 730,000,000 to above 1,000,000,000 feet of lumber. Michigan is the foremost State in the value of its lumber and laths. In 1886, her product was 3,000,000,000 feet of lumber and 284,000,000 shingles. There are 1,000 mills, with an invested capital of fully $48,000,000, and a yearly product of $60,000,000. They employ 35,000 men. The lumber-industry of the Huron shore converges about Saginaw Bay, which is entered by ten rivers, with an aggregate length of nearly 900 miles, floating yearly 600,000,000 feet of logs. The Grand and Muskegon Rivers are also used by vast rafts. Thousands of vessel-loads of cord-wood, cedar posts and hemlock bark are shipped yearly from the Michigan shores, and thousands of tons of maple-sugar and potash and pearl-ash.

At the close of the civil war, Gen. Russell A. Alger, whose name is now familiar throughout the whole country, settled at Detroit, without a dollar and in ill health, and bearing the scars of many battle-wounds, but full of energy and hope. He established a lumber business, which in 1881 received incorporation as Alger, Smith & Co., and is now one of the leading industries of the kind in America. This corporation and the Manistique Lumbering Co. (also under the presidency of Gen. Alger) own 130,000 acres of pine-land in Alcona County and in the Upper Peninsula, with mills and steamboats; and employ a thousand men, producing yearly 140,000,000 feet of long pine timber, saw logs and lumber. Alger, Smith & Co., with their allied concerns, are said to be the largest producers of long timber in the world; and most of their shipments go from Black River to Toledo and Cleveland, Detroit and Tonawanda. Large timber-rafts are towed by the company's steamers to various ports, to be used in all operations requiring good lumber. The avocations of the woodsmen in the great forests of Michigan are full of interest. Gen. Alger also owns important interests in great areas of pine-lands in Wisconsin and the South, and of redwood in California, and fir in Washington, whose products supplement those of the Michigan woods.

SAULT STE.-MARIE: SHIP-CANAL AND LOCKS.

The Upper Peninsula is about half the size of the Lower, 318 miles long from east to west, and from 30 to 164 miles from north to south, and with 100,000 inhabitants, mostly connected with the mines. On the south it has Wisconsin, Green Bay, Lakes Michigan and Huron, and the Straits of Mackinaw; on the north are Lake Superior and the St.-Mary's River. A line of highlands runs from the Sault Ste.-Marie westward almost to Marquette, where it breaks into two lower ridges, one swinging out into Lake Superior, at Keweenaw Point, and the other running west toward the upper lake-country of Wisconsin. The Porcupine Mountains (50 miles long), 20 miles west of Ontonagon, rise 2,000 feet high along Lake Superior, with the Copper Range extending from Keweenaw Point into Wisconsin, and the South Copper and Iron Ranges farther east. Most of the streams flow south, but the two chief rivers, the Tequamenon and Ontonagon, run north into Lake Superior. Rugged ridges and sandy plains extend off from the mountain-ranges, and the south is covered with virgin forests, extending down into the far-reaching and valuable pineries of Wisconsin.

The Sault-Ste.-Marie River, 62 miles long, forms the boundary between the United States and Canada, uniting the waters of Lake Superior and Lake Huron. It is a rapid and transparent stream, with many islands and lake-like widenings, and leagues of forest-bound shores. The St.-Mary's Ship-Canal was opened by Michigan in 1855, and afterwards transferred to the United States, since which great improvements have been made. The lock built in 1881 cost $1,000,000, and is of granite, with the most approved modern mechanism. It is the largest lock in the world, with a length of 515 feet, a width of 80 feet, and a lift of 20 feet. It can be filled in 15 minutes, and will hold two large lake-steamers. Navigation keeps open here 210 days or more in a year. In 1888, 7,803 vessels passed through, with a tonnage of 5,130,659, and a freight tonnage of 6,411,423. The value of these cargoes exceeded $80,000,000. A larger lock, 1,000 feet long, 100 feet wide, and 21 feet deep, to cost $4,000,000, is being constructed on the site of the lock opened in 1855. A greater tonnage passes through this canal every year than through the world-renowned Suez Canal, carrying 25,000,000 bushels of wheat, 2,500,000 tons of iron ore, 165,000,000 feet of lumber, and great quantities of coal. A single vessel and its tow can transport as much as 700 freight-cars. At Sault Ste.-Marie (usually called "The Soo") converge the tracks of the Duluth, South-Shore & Atlantic, the Minneapolis, St.-Paul & Sault-Ste.-Marie, and the Sault Branch of the Canadian-Pacific Railroad. Near the busy city which is rising here on the international boundary stands the garrisoned post of Fort Brady, built in 1823. A canal was finished in 1873 from Lake Superior to Portage Lake, to enable vessels to avoid weathering Keweenaw Point. It is 1½ miles long, and collects enormous tolls from the passing vessels.

IRON-ORE MINING.

The bitter winds and fogs of Lake Superior, and the rough and rocky character of much of the soil, have prevented large farming operations in this region, and the people have turned their attention to mining, in which they have achieved great results.

GRAND RAPIDS: MICHIGAN SOLDIERS' HOME.

PICTURED ROCKS: LAKE SUPERIOR

The Iron Ore Product of Michigan is far greater than that of any other State, and amounts to more than one-third of the entire American output. Fifty-seven million tons had been shipped hence down to the close of 1886, valued at $285,000,000. In 1880 the product of the mines and furnaces was about 2,000,000 tons, valued at $19,500,000. The iron ore mined, sold and shipped in 1885 reached 2,466,872 gross tons; in 1886, 3,568,022; in 1887, 4,730,557; in 1888, 5,025,277; and in 1889, 5,856,169. The Michigan product is valued at $16,000,000 a year; and has more than trebled in the last five years. The Menominee Range began its output in 1877, and has yielded 12,000,000 tons, averaging latterly 1,800,000 tons yearly. The Gogebic and Vermilion Ranges were opened in 1884, and the former ships 1,200,000 tons a year. Their united product has amounted to 8,000,000 tons. The Norrie Mine alone gives half a million tons yearly. The Marquette Range has yielded over 30,000,000 tons of ore, and still leads the other districts in its yearly output. The Schlesinger syndicate is a combination of New-York and Berlin capitalists, who have already acquired 15 mines, valued at $10,000,000, and yielding millions of tons a year. They opened in 1890 a railway of 54 miles, from Iron Mountain east to the docks at Escanaba, on Lake Michigan. The Cleveland Iron Mining Company recently paid $1,750,000 for seven tenths of the Iron-Cliff district, near Marquette. The Michigan ores are of unparalleled richness, reaching an average of 63 per cent. for the best grades, and making the purest and most refractory iron in America. The mountain ranges send thousands of cargoes yearly to the great rolling-mills of Chicago, Cleveland and Pittsburgh, without missing them. Marquette, on Iron Bay, opening from Lake Superior, under the lee of the beautiful Presque Isle (granted by Congress for a city park), is one of the chief outlets of the great iron country, with large shipping interests. Escanaba is another important shipping point, near the mouth of Longfellow's "Rushing Escanawba," and on a bay of Lake Michigan, amid much beauty of scenery. The trappean mountains of Keweenaw Point, 600 to 1,200 feet high, and projecting 70 miles into Lake Superior, contain the richest copper-mines in the world, where are found masses of pure virgin copper, only needing to be cut out of the rocks. The Indians used to make implements from this metal, centuries ago, and believed that Keweenaw was the home of a dreadful demon. These mines of the Upper Peninsula have produced $200,000,000 worth of ore. They employ nearly 6,000 men, one fifth being Americans, and the rest Englishmen, Finns and French Canadians. The copper-belt is 135 miles long, and from one to six miles wide. The output of copper in 1845 was twelve tons; in 1888 it reached 38,000 tons, valued at $12,000,000. It is claimed that the Calumet and Hecla is the most profitable mine in the world, having paid in dividends $32,000,000, within 20 years. The Tamarack, Quincy and other mines have also given large profits to their owners. The Tamarack-Osceola combination have a rolling-mill at Dollar Bay, near the mines. The singular tenacity of Michigan copper gives it great value for cartridges, and it is in demand by the military nations for this purpose.

LANSING: REFORM SCHOOL FOR BOYS.

In 1888 deposits of gold were discovered, near Ishpeming; and several mines are now in

BATTLE CREEK: BATTLE-CREEK COLLEGE.

DETROIT: HOUSE OF CORRECTION.

operation, in the auriferous quartz, shipping large quantities of bullion and concentrates. The Lake-Superior region also produces silver, agate, sardonyx, chalcedony, cornelian, jasper and opals. Roofing-slate and freestone are quarried at Arvon, twelve miles from L'Anse; brown freestone and mottled marble at Marquette; and limestone at Drummond's Island. Here, also, is found an excellent quartz, used in lining Bessemer-steel converters; and granite and syenite occur in large masses. The Michigan Mining School, founded by the legislative act of 1885, occupies a building of Lake-Superior sandstone, erected in 1888–9, at Houghton, overlooking Portage Lake. Its chief studies are petrography, metallurgy, geology, mineralogy, chemistry and engineering, with frequent excursions to the great copper and iron mines and works near by. Tuition is free to residents of Michigan. The jagged capes and far-retiring bays around the Upper Peninsula have much grandeur of scenery, and attract great numbers of vacation-tourists every summer. The Pictured Rocks are a series of seven miles of sandstone cliffs, rising 300 feet sheer from the waters of Lake Superior, worn by the waves into many strange and fantastic shapes, as of castles, towers, chapels, gates, sails and profiles, in vivid tints of gray and green, umber and vermilion, blue and yellow, and extending eastward from the beautiful Munising harbor to the desolate yellow sand-hills of the Sables, 30 miles west of Sault Ste.-Marie. At one point the Silver Cascade plunges 175 feet sheer over the cliffs, and scores of other waterfalls gem the lonely walls of rock. This is in the heart of Hiawatha's country, and the wigwam of Nokomis stood on the site of the half-ruined and deserted port of Munising, facing the Big Sea Water.

DETROIT: THE HARPER HOSPITAL.

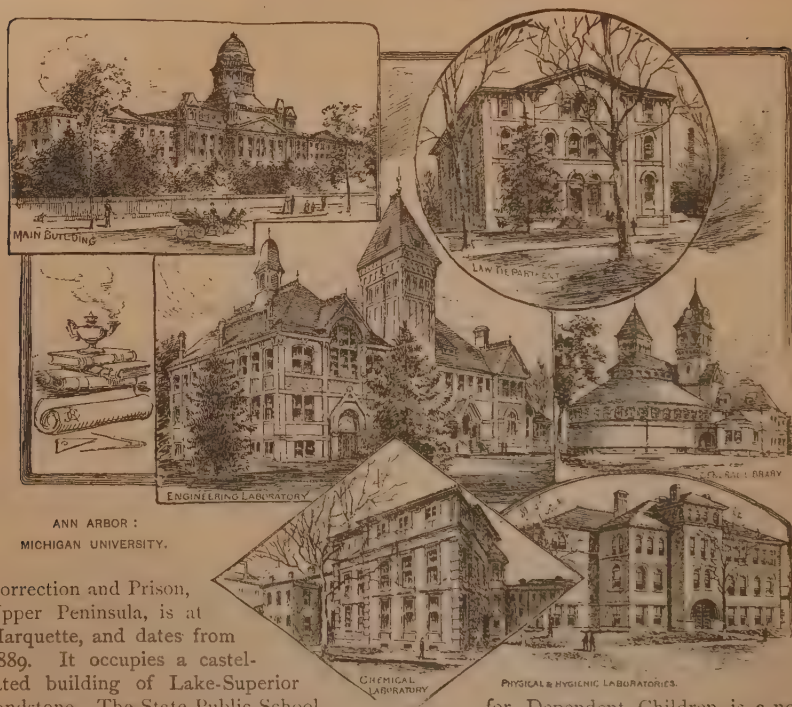
Isle Royale, 55 miles from Keweenaw Point, and 15 miles from the Canadian shore, is 45 miles by nine miles in area, with rocky and indented shores and great woods, and hills 700 feet high. Copper was mined here by the pre-historic races, and has been worked recently by less primitive processes. Drummond's Island, one of the Manitoulin group, belongs to the United States, and is 20 miles long, with rocky and irregular shores, separated from the mainland by the Detour Passage.

The Government of Michigan rests in a biennially elected governor and executive officers; a legislature, usually holding sessions from January 1st to July 1st every other year; and a supreme court of five elective judges, for terms of ten years, with 29 circuit courts—the judges elective for terms of six years. The State House at Lansing was erected in 1872–8, at a cost of $1,500,000, of Amherst (Ohio) sandstone. The State Library numbers 48,000 volumes.

The Michigan State Troops are well organized, and include 2,418 volunteers, organized into a brigade, composed of the First, Second, Third and Fourth Regiments of Infantry. They encamp five days of each summer, in company with a battalion of United-States regulars. The Michigan Soldiers' Home occupies an imposing structure near Grand Rapids, dedicated in 1886, and taking care of 450 veterans of the campaigns of the civil war.

HILLSDALE: HILLSDALE COLLEGE.

The Charities and Corrections of Michigan include the State Prison, at Jackson, with 750 convicts; the House of Correction and Reformatory at Ionia, 390; the Industrial Home for Girls, at Adrian, 220; and the State Reform School for Boys, on a large farm near Lansing, 460. The State House of



ANN ARBOR:
MICHIGAN UNIVERSITY.

Correction and Prison, Upper Peninsula, is at Marquette, and dates from 1889. It occupies a castellated building of Lake-Superior sandstone. The State Public School for Dependent Children is a noble and useful institution, on a farm of 120 acres, at Coldwater. The inmates are 200 healthy children, between two and twelve years old, who must otherwise have been maintained and educated by the State, which also finds homes for them. The Michigan School for the Deaf, at Flint, dating from 1854, cares for 300 inmates, teaching them printing, sewing, carpentering, shoe-making, and cabinet-work. The School for the Blind, at Lansing, has 90 inmates, who are taught broom-making and piano-tuning. The several counties support their own insane poor in the great institutions, which have cost the State $4,000,000. The Michigan Asylum, at Kalamazoo, has 860 inmates; the Eastern Asylum, at Pontiac, 800; the Northern Asylum, at Traverse City, 600; and the Asylum for Insane Criminals, 240

Education was early provided for by grants of land, and the proceeds of their sales are held by the State as a fund, whose interest goes toward the support of the schools. The primary-school fund amounts to $5,000,000. The school property is valued at $13,000,000. The income from the funds is supplemented by local taxes. The State Normal School is at Ypsilanti, and there are training classes and schools elsewhere, while teachers' reading circles and institutes do valuable work. The graded schools include primary, grammar and high schools, pupils studying four years in each, and passing to the University by diploma.

The University of Michigan, one of the greatest of American educational institutions, dates its origin from 1817, when Chief-Justice Woodward drew up "An act to establish the Catholipistemiad, or University of Michigania." The institution had already been provided for by a Congressional land-grant, but it did not begin work until 1841. The United-States grant is worth $500,000; the State appropriated $1,200,000; and Ann Arbor, where the University is established, has made generous gifts. It is the culmination of the

public-school system, and offers its privileges without charge for tuition, to young men or women. The literary department has 1,000 students; the department of medicine and surgery (founded in 1849), 370; the Law Department (1858), 525; Pharmacy (1869), 80; the Homœopathic Medical College (1875), 70; the College of Dental Surgery (1875), 100. The General Library contains 60,000 volumes, including several remarkable special collections; and there are 14,000 volumes in the law and medical libraries. The museum has 400,000 specimens. There are magnificent equipments in science and art; and the new laboratory for chemical study is exceptionally large. Advanced students follow the German Seminary method of instruction. There have been many women students in the University, since their admission in 1870. Nearly half the students are from Michigan, the rest being mainly from the West, with 150 from the Middle States, 50 from the South, 80 from the Pacific States, 25 from New England, 50 from Canada, 20 from Japan and 10 from Europe, the total number in attendance being 2,162, of whom 368 are women.

DETROIT: MUSEUM OF ART.

KALAMAZOO: THE OPERA HOUSE.

The Michigan State Agricultural College, near Lansing, has 27 instructors and 320 students. The mechanic arts are taught here, and horticultural and veterinary science, with military drill. The State Mining School is at Houghton. Olivet College was founded in 1844, as a daughter of Congregational and Anti-Slavery Oberlin, and a granddaughter of New England. It has a campus of 20 acres, with the beautiful new library, Shipherd Hall (for girl-students) and other buildings. There are 16 instructors and 200 students. Hope College, at Holland, was founded in 1851 by a colony of Hollanders, who had left their native country in search of religious freedom. It has seven professors and 40 students, with 100 in the grammar-school, eight in the Western Theological Seminary of the Reformed Church in America, and 150 in the Summer Normal School. Adrian College, founded in 1859, has twelve instructors and six schools, including the divinity school of the Methodist Protestant Church. Kalamazoo College owns several good buildings, in a campus of 25 acres on a far-viewing hill. The new Ladies' Hall is one of its

DETROIT, THE CITY OF THE STRAITS, FROM WINDSOR.

chief features. Albion College belongs to the Methodists, and has, in all departments, 440 pupils. Battle-Creek College is the chief school of the Seventh-Day Baptists in America; and Hillsdale College is a famous Free Baptist institution. Among the secondary schools are the Michigan Military Academy, at Orchard Lake, with eight instructors and 120 cadets; Michigan Female Seminary, at Kalamazoo; and the Jesuit institution of Detroit College.

Newspapers began here with *The Michigan Essay and Impartial Observer*, printed in 1809, on a press brought west by Father Richard, the Catholic leader at Detroit. *The Detroit Gazette* began in 1817; the *Detroit Free Press*, in 1826; and the *Michigan Emigrant*, at Ann Arbor, in 1827. The Michigan press now includes 673 periodicals, of which 44 are daily and 53 monthly. Twenty-five of these are devoted to religion, eleven to science, seven to colleges, and a dozen or more to the lumber and mining interests. Two are in the French language, two in Finnish, four in Swedish, seven in Holland Dutch, and 22 in German.

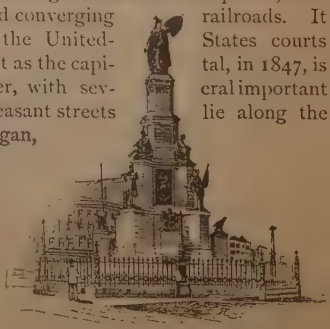
DETROIT: YOUNG MEN'S CHRISTIAN ASSOCIATION.

The largest of the public libraries are those of Detroit, 100,000 volumes; Kalamazoo, 12,000; Bay City, 10,000; Grand Rapids, 17,000; and West Bay City, 12,000. Hope College has 30,000; and Olivet, 14,000; and the State and University libraries are still larger. In 1890 Charles H. Hackley presented to Muskegon a beautiful fire-proof library building, of Maine granite and Marquette brownstone, with many thousand books, the gift amounting to $175,000.

The Detroit Museum of Art keeps its rich collections in a handsome Romanesque building of stone. The Ladies' Library at Kalamazoo has attractive quarters; and the Opera House is a master-work of the architects, Adler & Sullivan.

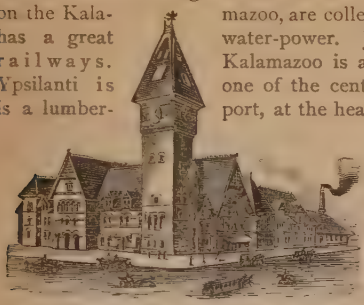
DETROIT: THE CITY HALL.

Chief Cities.—The metropolis of Michigan is Detroit, a handsome city 18 miles from Lake Erie, and on the outlet of the upper Great Lakes, with a good harbor and an immense maritime and railway traffic, mainly in grain, wool, pork, and copper. It extends along Detroit River (half a mile wide) for seven miles, facing the Canadian village of Windsor. Great public buildings adorn the city, which has also many important factories. It ranks as one of the five chief lake-ports. The Harper Hospital; the soldiers' monument, designed by Randolph Rogers, and built at a cost of $60,000; the 700-acre park on Belle Isle; and the Bagley fountain on the Campus Martius, from which the principal avenues radiate, are among the interesting features of the City of the Straits. Fort Wayne, near Detroit, covers an area of 65 acres with its batteries and parade-ground, and commands the river with heavy ordnance. It is occupied by a small garrison of United-States troops. The United-States Marine Hospital is on the river-bank, near Detroit. At Grand Rapids the Grand River falls 18 feet in a mile, affording a valuable water-power, with canals on each side and many busy furniture factories, and converging railroads. It is the second city in the State, with 50 churches, and the United-States courts for Western Michigan. Lansing, which succeeded Detroit as the capital, in 1847, is a small manufacturing city on both sides of Grand River, with several important State institutions. Muskegon's great lumber-mills and pleasant streets lie along the handsome Muskegon Lake, four miles from Lake Michigan, and on several railways. Saginaw is the capital of the Saginaw-Bay lumber and salt region, and has furniture and other factories extending for a league along the Saginaw River, and producing an immense revenue every year. Bay City and West Bay City lie at the mouth of the Saginaw, and export vast quantities of salt, lumber and fish. Port Huron is a ship-building town, opposite Port Sarnia, on the outlet of Lake Huron, with large



DETROIT: THE SOLDIERS' MONUMENT.

shipments of grain, lumber and wool. Ann Arbor, in the Huron valley of southern Michigan, is the seat of the great State University. Adrian, on the Raisin, is also a college-town, and the manufacturing and trade centre of a rich farming country. Battle Creek and Albion, on the Kalamazoo, are college and manufacturing towns. Flint, on Flint River, has a great water-power. Jackson, in the south centre, has many factories and railways. Kalamazoo is a college-town, with a considerable country trade. Ypsilanti is one of the centres of the southeastern farming country. Alpena is a lumber-port, at the head of Thunder Bay.


DETROIT: MICHIGAN CENTRAL RAILROAD STATION.

The chief ports of the Lake-Michigan shore are St. Joseph, in the fruit-belt; Grand Haven, which also has prosperous seasons as a summer-resort; Muskegon, with its multiplying industries and its factories of toys, wooden-ware and pianos; Traverse City, with lumber-mills and foundries, and a beautiful bay and a back country bright with many lakes; and Petoskey, with a considerable patronage as a summer-resort, being one of the places exempt from the hay-fever, and near famous fishing-grounds among the forest-lakes. One mile north of Petoskey, on high ground, with long pebbly beaches, is the great Bay-View Camp-ground, a summer-resort with many cottages. The chief places about the Straits are St. Ignace, with its smelting-works; Cheboygan, a lumber port; and Mackinac.

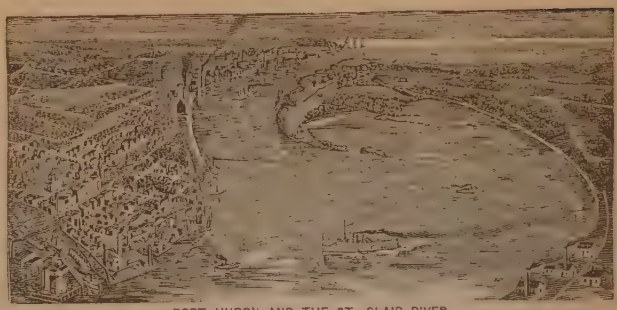
Michigan has more Canadians (148,866) and more Hollanders (17,177) than any other State. The Indians of Michigan include the Vieux-Desert, L'Anse and Ontonagon bands of Chippewas, on the Upper Peninsula, numbering about 6,000; 600 Chippewas on the Isabella Reservation, near Mt. Pleasant; and the Pottawattomies of Huron, on the Lower Peninsula.

DETROIT: FIRST NATIONAL BANK.

The Finances of Michigan mainly centre in Detroit, the metropolitan city, and one of the dozen great centres of the Republic. Foremost among the monetary institutions of the State stands the First National Bank of Detroit, with resources of over $4,000,000, a capital of $500,000, and surplus and undivided profits of $200,000. This financial corporation dates from 1863, and was re-incorporated in 1882, for a period of 20 years. It has always been regarded as one of the most successful and conservatively managed banks in the Lake States, and has extended timely and valuable assistance to many enterprises that are now powerful in influence and wealth. Emory Wendell is the president of the First National Bank; and the directorate includes men who have large fortunes, and are prominent in mercantile, manufacturing and professional pursuits in Detroit.

Railroads.—The Detroit & St.-Joseph, Detroit & Pontiac, and Michigan Southern lines were chartered here in 1832; and a few years later the State began the building of several routes. In 1836, 63 miles were built; and eight years later the Michigan Central reached Kalamazoo (143 miles), and the Michigan Southern reached Hillsdale (66 miles), with their odd little stage-coach cars and strap-rails. After the State became financially embarrassed, its railways were sold to private corporations, which have advanced the system so efficiently that 80 out of the 84 counties are now on their lines, the total cost of which amounts to $240,000,000. In 1884 only eight out of 60 Michigan railways paid dividends.

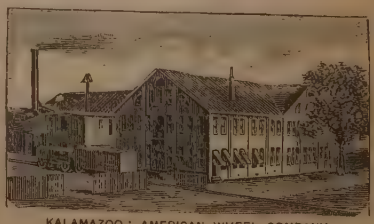
KALAMAZOO: MICHIGAN-CENTRAL RAILROAD STATION.


PORT HURON AND THE ST.-CLAIR RIVER.

The Lake-Shore & Michigan Southern and the Michigan Central lines are parts of the great transcontinental systems, between the Atlantic seaboard and Chicago, and serve large areas of southern Michigan with their branches. The Lake-Shore reaches Grand Rapids and Lansing, Jackson and Ypsilanti, Monroe and Detroit. The Michigan Central crosses southern Michigan from Chicago to Detroit, Niagara Falls, Buffalo and the East; and has branches to South Haven, Grand Rapids, Saginaw and the North. It is a favorite route between Chicago and New York, with swift and luxurious trains. The Chicago & Grand Trunk Railway joins Chicago with the Grand Trunk system of Canada, at Port Huron, and has subsidiary lines from Jackson and Detroit to Port Huron, and from Detroit west across the Lower Peninsula to Grand Haven and Muskegon. There are several important north and south lines, including the Michigan Central route from Detroit to Bay City and Mackinac, on the east, and the Grand-Rapids & Indiana on the west (from Richmond to Mackinac, 460 miles), each of which runs north to the Strait of Mackinaw. Several lines of railway cross the Lower Peninsula from east to west, and connect the ports on the Great Lakes. The Upper Peninsula is traversed by the Duluth, South-Shore & Atlantic, from Duluth east to Sault Ste.-Marie (410 miles), connecting there with the Canadian Pacific route for New England. Branches run to St. Ignace, on the Strait of Mackinaw; and to Houghton, on the Keweenaw Peninsula. The Minneapolis, St.-Paul & Sault-Ste.-Marie line runs from Minneapolis to the Soo (494 miles), connecting there with the Canadian Pacific. Several railways coming north from Chicago intersect these two routes, on the Upper Peninsula. The railway systems of Michigan and Canada are connected by powerful steam ferry-boats between Detroit and Windsor. The tunnel under the St.-Clair River, from Port Huron to Port Sarnia, the only iron cylinder tunnel in America, is a mammoth iron tube, 7,000 feet long and 20 feet in diameter, built in sections and bolted together as fast as the 600 laborers cut their way forward, from both ends, through the stiff blue clay. It is lighted by electricity, heated by steam-pipes, and kept filled with pure air by powerful engines. This greatest river tunnel in the world was opened in 1891.

DETROIT: FIRE-ENGINE HOUSE.

The Manufactories of Michigan are 9,000 in number, with over 80,000 operatives, $100,000,000 in invested capital, and a yearly product of $150,000,000. Thirty million dollars of this is in flour, and there are immense manufactories of walnut and other furniture, and of iron and steel. Among the interesting manufactures are the wooden bowls of Bellaire, the windmills of Lyons, the batting of Centreville, the broom-handles of LeRoy, the pumps of Chelsea, the corsets of Jackson, the wood alcohol of Elk Rapids, the hammocks of Homer, the woodenware of Petoskey, the bee-hives of Wayland, the wood-pulp of Utica, the toys of Muskegon, the


KALAMAZOO: AMERICAN WHEEL COMPANY.

DETROIT: DETROIT DRY-DOCK COMPANY.

veneers of St. Ignace, the wheelbarrows of Lansing, the wheels of Kalamazoo, and the Belding Bros. silk-mills, at Belding.

The important industry of building the safe and splendid passenger and freight steamships for traffic on the Great Lakes has been to a large extent developed by the Detroit Dry-Dock Company. The ship-building business founded in 1852 by John Owen, Capt. Gordon Campbell and others, was incorporated under the above name in 1872, and does a business of $1,500,000 a year, and employs 800 men. The company builds and equips the largest steamers, ready for sea-service, usually of iron, wood or steel, and with triple-expansion engines. The yards for building wooden ships cover 13 acres, and have four dry-docks, the chief of which is 400 feet long. A wooden vessel was built here 298½ feet long, and of 2,076 tons burden, with a cargo-capacity of 2,600 tons. The shipyards at Wyandotte cover eleven acres, and have launchways for building five iron, steel or composite vessels. One of the steel steamships constructed here (the *Maryland*) has a length of 337 feet, with a tonnage of 2,500, and a cargo capacity of 3,700 tons. The engine-works cover nearly three acres, with a complete plant for building marine engines and boilers. These three various plants are operated from the company's office at Detroit.

WYANDOTTE: DETROIT DRY-DOCK COMPANY.

The railways of this continent employ about 1,100,000 freight cars, one tenth of which have to be replaced every year. One of the chief sources of supply is the Michigan Car Company, founded in 1864, at West Detroit, by James McMillan (now United-States Senator). The first refrigerator-cars came from these works, and three fourths of the cars of this kind in use are manufactured here, besides box and flat cars, coal and tank cars, ore and stock cars, snow-plows and cabooses, to the number of nearly 10,000 a year. Repairs are also made here upon cars sent in from all the country between Ohio and Wyoming. The Detroit Car-Wheel Company, with substantially the same stock-holders and officers as the car company, has its works in the same enclosure, with a daily capacity of 425 cast-iron wheels and 100 tons of other castings. Another allied corporation is the Michigan Forge & Iron Company, whose works at Spring Wells (Detroit) turn out wrought-iron bars and axles, heavy forgings, and links and pins, mainly used by the car company. The Detroit Pipe and Foundry Company make cast-iron water and gas mains, culverts and drainage pipes; and four fifths of the cast-iron lining of the great Detroit-River Tunnel at Port Huron came from its works. These four allied corporations employ 3,000 men, and produce yearly $6,000,000 worth of cars and specialties for the railway companies.

DETROIT: MICHIGAN CAR COMPANY.

The pretty city of Belding has grown up around the Belding silk-mills, one of the extensive establishments of Belding Bros. & Company.

GRAND RAPIDS: BISSELL CARPET-SWEEPER COMPANY.

Four fifths of the carpet-sweepers made in the world come from the Bissell Carpet-Sweeper Company's factories at Grand Rapids, founded by Melville R. Bissell in 1876. These works employ 300 hands, making daily 1,200 sweepers, which are sold all over the Union, and from the company's ware-rooms in London and Paris, and agencies in 22 foreign countries. This is by far the foremost corporation of the kind in the world, and maintains a department of invention, to which is due the many patents and devices constantly originated and made practical in this business. Since Mr. Bissell founded the company, the carpet-sweeper has developed from a mechanical brush, of little value except for picking up crumbs and light dirt, to a mechanical broom, less laborious in operation than the old methods of sweeping, and more effective and desirable. The famous broom action, invented in 1880, with its thorough work on every kind of carpet, has advanced the Bissell Carpet-Sweeper Company to an unapproachable supremacy, recognized by all house-keepers; and the products now number over a hundred varieties of styles and constructions, finish and devices.

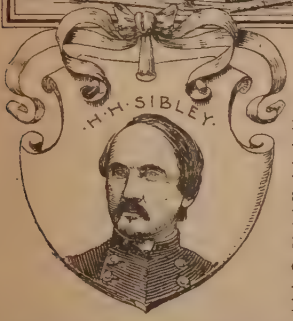
In Detroit are the main laboratories and home offices of Parke, Davis & Company, manufacturing chemists and pharmacists. Their branch establishments are at New York, Kansas City, London, England, and Walkerville, Ont. Their products are adopted by the medical profession throughout the world. The Detroit establishment covers over five acres of floor space and gives employment to some 700 educated people. Their laboratories form one of the finest manufacturing plants in America, and the extensive group of handsome brick buildings comprises one of the most notable sights in Michigan. From a very modest beginning this has grown to be an enterprise of the first magnitude; the corporation having a paid-up capital of $1,000,000. The secret of its growth, which is phenomenal, even when compared with any manufacturing business, lies in three fundamental principles; the superior quality and uniformity of its products; its devotion to the mutual interests of pharmacists and physicians; and its enterprise in investigating new drugs, eligible forms of exhibiting old remedies, and improved processes of manufacture. These investigations have resulted in bringing to the attention of the medical profession many indispensable remedies, permanently placed in the pharmacopœias of America and Great Britain. Parke, Davis & Co.'s specialties include pharmaceutical preparations, fine chemicals, digestive ferments, empty capsules and other gelatine products, pressed herbs, and the superior food products of the Mosquera-Julia Food Co.

DETROIT: PARKE, DAVIS & CO.

"Its borders are so many vast prairies, and the freshness of the waters keeps the banks always green. The hand of the pitiless reaper has never mown the luxuriant grass upon which fatten many buffaloes of magnificent size and proportion. The fish are here nourished and bathed by living waters of crystal clearness, and their great abundance renders them none the less delicious. I asked a savage if there was much game there. 'So much,' he said, 'that they drew up in lines to let the boats pass through.'"—CADILLAC, ON MICHIGAN.

BELDING: BELDING BROS. & CO.'S SILK-MILL.

Distances between Lake Ports: Detroit to Saginaw River, 207 miles; Mackinac, 303; Milwaukee, 569; Chicago, 634; Sault Ste. Marie, 345; Marquette, 504; Duluth, 742; Toledo, 57; Cleveland, 105; Buffalo, 255; Montreal, 629.



HISTORY.

The aborigines of Minnesota were the Chippewas, occupying more than half the State, in its forest and lake regions; and the Dakotas (latterly called Sioux), roaming over the open prairies. The Chippewas were woods Indians, with canoes; the Dakotas were plains Indians, with ponies. The two nations were hereditary enemies, and the Upper Mississippi Valley was the debateable ground between them. Their local names, Winona, Mendota, Anoka, Wapashaw, Kasota and many others, are their imperishable memorials in the valley of the Mississippi. The Dakotas were divided into the Isanyati, Ihanktonwan (Yankton), and Titonwan clans. The Assininboines, along the Rainy River, broke off from their Dakota brethren, as a result of an ancient Paris and Helen tragedy, and remained their inveterate enemies. The religious rites and beliefs, the legends and traditions, of the Dakotas are of singular interest, and have inspired a large body of literature. The first white visitors to these shores were French fur-traders, who came hither as early as 1659. They were followed by missionary priests, who laid down their lives gladly for their holy cause, but made no impression on the fierce Northwestern savages. In 1679 Du Luth established the first trading-posts in Minnesota; planted the royal arms of France among the Sisseton Sioux; and visited Mille Lacs. In 1680 Father Hennepin and two French traders ascended the Mississippi to St.-Anthony's Falls; and they were borne thence to the Dakota villages near Mille Lacs. In 1688 Perrot founded, on Lake Pepin, the first French establishment in Minnesota; and thereafter, for nearly 80 years, the missionaries and traders of France visited the Upper Mississippi, and dwelt in little forts between Lake Superior and the great river. After France surrendered its vast American empire to Great Britain, an adventurous Connecticut man, Jonathan

STATISTICS.

Settled at	Fort Snelling.
Settled in	1819
Founded by	Americans.
Admitted as a State,	1858
Population in 1860,	172,023
In 1870,	439,706
In 1880,	780,773
White,	776,884
Colored,	3,889
American-born,	513,097
Foreign-born,	267,676
Males,	419,149
Females,	361,624
In 1890 (U. S. Census),	1,301,826
Population to the square mile,	9.8
Voting Population (1880),	213,485
Vote for Harrison (1888),	142,492
Vote for Cleveland (1888),	104 385
Net State Debt,	0
Assessed Valuation of Property (1890),	$589,000,000
Area (square miles),	83,365
U. S. Representatives (1893),	7
Militia (Disciplined),	1,907
Counties,	80
Post-offices,	1,309
Railroads (miles),	5,466
Vessels,	89
Tonnage,	9,591
Manufactures (yearly),	$76,065,198
Operatives,	21,212
Yearly Wages,	$8,613,194
Farm Land (in acres),	13,403,019
Farm-Land Values,	$193,724,260
Farm Products (yearly),	$49,468,951
Public Schools, Average Daily Attendance,	111,641
Newspapers,	476
Latitude,	43°30′ to 49° N.
Longitude,	89°29′ to 97°5′ W.
Temperature,	−54° to 103°
Mean Temperature (St. Paul),	42°

TEN CHIEF CITIES AND THEIR POPULATIONS (CENSUS OF 1890.)

Minneapolis,	164,738
St. Paul,	133,156
Duluth,	33,115
Winona,	18,208
Stillwater,	11,260
Mankato,	8,838
St. Cloud,	7,686
Faribault,	6,520
Red Wing,	6,294
Brainerd,	5,703

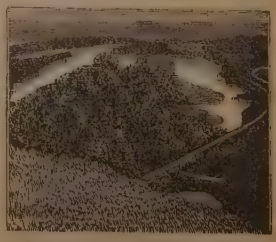
LAKE MINNETONKA.

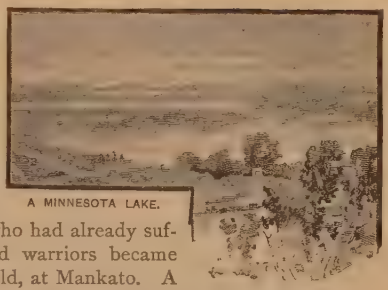
Carver, ascended the Mississippi to the falls (in 1766), and sojourned among the Dakotas on the Minnesota River. During most of the remainder of the century the country was occupied by the fur-trading posts of the Northwestern Company. Minnesota was made up of two sections. The part east of the Mississippi belonged to New France, discovered and owned by the French, and ceded to Great Britain in 1763. A vast area of this domain, along the Ohio, was conquered by George Rogers Clark, in 1778, and annexed to Virginia, which ceded it to the United States, under the name of "The Territory Northwest of the River Ohio," in 1784. The part of Minnesota west of the Mississippi belonged to the province of Louisiana, and remained nominally under French rule until 1763, when it was ceded to Spain, and pertained to that Government for 40 years. In 1803 it passed into the possession of the United States, by virtue of the Louisiana Purchase from France (to which it had been retroceded).

The first United-States officer to visit Minnesota was Lieut. Zebulon M. Pike, who came hither in 1805, to expel the lingering British traders; and obtained from the Sioux a grant of nine miles square, including the site of Fort Snelling and the Falls of St. Anthony. The country remained in the hands of the fur-traders and the Indians until 1820, when Col. Leavenworth and the Fifth United-States Infantry built Fort Snelling, and Gov. Lewis Cass and Henry R. Schoolcraft explored the valley. Three years later, the first steamboat (the *Virginia*) ascended the Mississippi into Minnesota, and frightened all the Indians out of Mendota; and Maj. Long's detachment explored the Minnesota valley, to Big-Stone Lake; and Count Beltrami discovered the source of the Mississippi. In 1832 the Rev. Wm. T. Boutwell opened a mission among the Chippewas; and in 1834 H. H. Sibley settled at Mendota. In 1836–7 the region of St. Paul received its first settlers, a group of Swiss colonists, retreating from the inclement Hudson's-Bay Territory, where they had been planted by the eccentric Lord Selkirk. In 1836 Nicollet, a Swiss scientific person, encamped three days at Lake Itasca, and explored and mapped all its inlets. In 1834 Samuel W. and Gideon H. Pond began their mission-work, at Lake Calhoun; followed, the next year, by Dr. T. S. Williamson, at Lac qui Parle. Stephen R. Riggs came in 1837. In those days there were myriads of buffalo in Minnesota, and the red hunters pursued them undisturbed over the immeasurable prairies. In 1850 the Minnesota Historical Society began its noble labors; and the steamers *Anthony Wayne* and *Nominee* ascended the Minnesota River nearly to Mankato, followed by the *Yankee*, which went nearly to New Ulm. Meantime, the Sioux and Chippewas had been killing each other off, as the result of a feud extending back for centuries; and those spared by the tomahawk had been decimated by famine and small-pox. As the white settlements advanced up the great river, the domains of the savages were bought up by the Government, and the fragments of the tribes receded toward Dakota.

FORT SNELLING.

The population rose from 4,000 in 1849 to 172,000 in 1860; and the cultivated area from 15,000 acres in 1854 to 433,000 acres in 1860. The troops sent by Minnesota into the late civil war included 11 regiments and 1 battalion of infantry, 1 regiment of heavy artillery, 2 regiments and 2 battalions of cavalry, 3 batteries, and 2 companies of


BARN BLUFF; MISSISSIPPI RIVER.

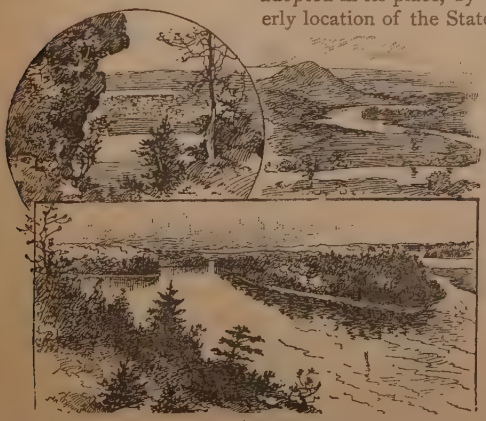

A MINNESOTA LAKE.

sharpshooters, numbering in all 25,052 men. In 1862, when the army garrisons and 5,000 of the able-bodied men of Minnesota were campaigning in the South, the Sioux broke into rebellion, and inside of two days cruelly killed 800 whites in the State. Fort Ridgely and New Ulm repulsed the savages, and Col. Sibley entered the devastated country with a strong column of volunteers, defeating the Sioux at Wood Lake, and rescuing 150 white captives, who had already suffered unspeakable outrages. Four hundred red warriors became prisoners, and 38 of them were hung on one scaffold, at Mankato. A subsequent campaign, carried into Dakota, completed the terrible work of punishment.

In its Territorial days Minnesota issued bonds to a large amount in aid of railway construction. The companies defaulted payment, and the State turned the plants over to other corporations. But the bonds remained to be paid, and the questions of how or whether to pay them were the chief local topics for many years. A popular vote in 1882 arranged for a sinking-fund to meet this $4,000,000.

The Name Minnesota comes from the Dakota language, *Minne* signifying "Water." *Sotah* means "Blear," or, as the Historical Society explains it, the peculiar appearance of the sky on certain days, neither white nor blue, giving the name of the State as "Sky-tinted Waters." It was originally applied by the Dakotas to the Minnesota River. Attempts were made to have the State named Chippeway, Itasca, Washington, or Jackson. The pet names of Minnesota are THE NORTH-STAR STATE, from the motto on its seal; *The Gopher State*, because it used to be infested with these animals; and *The Lake State*, from its myriad of interior lakes.

The Arms of Minnesota were devised by Gov. Ramsey and Henry H. Sibley, in 1849-50. They bear: the Falls of St. Anthony in the distance; a pioneer ploughing the prairie on the borders of the Indian country, full of hope and looking forward to the possession of the hunting-grounds beyond; an Indian, amazed at the sight of the plough, and fleeing on horseback toward the setting sun. The motto was *Quæ sursum volo videre*, "I wish to see what is above;" but this was wrecked into incomprehensibility by an ignorant engraver; and subsequently the phrase, *L'Etoile du Nord*, "The Star of the North," was adopted in its place, by Gov. Sibley, on account of the northerly location of the State in the Union.

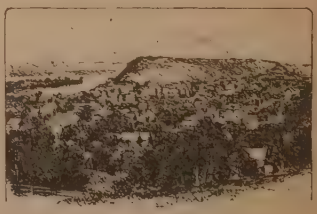

WINONA. SUGAR LOAF. MISSISSIPPI RIVER, FROM FORT SNELLING.

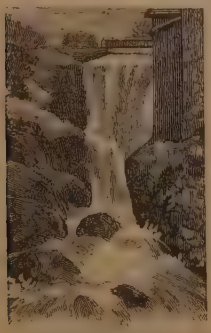
The Governors of Minnesota have been: *Territorial:* Alex. Ramsey, 1849-53; Willis A. Gorman, 1853-7; Samuel Medary, 1857-8; *State:* Henry H. Sibley, 1858-60; Alex. Ramsey, 1860-3; Henry A. Swift, 1863-64; Stephen Miller, 1864-6; Wm. R. Marshall, 1866-70; Horace Austin, 1870-4; Cushman K. Davis, 1874-6; John S. Pillsbury, 1876-82; Lucius F. Hubbard, 1882-7; Andrew R. McGill, 1887-9; and Wm. R. Merriam, 1889-93.

Descriptive.—Minnesota is one of the northern tier of States, reaching up to the 49th parallel, and bounded beyond by the Canadian

provinces of Manitoba and Keewatin. The Dakotas lie along its western border, and Iowa on the south; and the east rests on Wisconsin and Lake Superior. It covers an area much greater than that of New England, mainly an undulating plain from 800 to 1,000 feet above the sea. The centre and south are rolling prairies, beautiful with flashing lakes and silvery streams. In the eastern part of this prairie country, the long strip of the Big Woods, covering 5,000 square miles, runs south from St. Cloud to Le Sueur, where it crosses the Minnesota, and sends branches toward Faribault and Mankato. It is 100 miles long, and from ten to 40 miles wide, and four fifths of it lies north of the Minnesota. This great belt of hardwood timber is one of the most valuable deciduous forests in the West. The Park region lies above the Big Woods, with a vast area of undulating prairie, agreeably diversified with oak-groves and shining lakes, and melting away into the Red-River prairies. The Heights of Land (*Hauteurs des Terres*), are a line of flat-topped sandhills, from 400 to 600 feet above the prairies, separating the Mississippi waters from those flowing to Lake Superior. The Leaf Mountains (*Coteau du Grand Bois*) run 150 miles south from this ridge, near Lake Itasca, 1,400 feet high. North of the line of Duluth and Moorhead a great belt of pine-woods extends from Lake Superior across the sources of the Mississippi to the Red River. Beyond the prairies, to the northward, a lofty wilderness of tamaracks and stunted pines separates the Mississippi and Rainy-Lake valleys. High granite hills follow the Lake-Superior coast; and in this northeastern region are vast swamps of wild rice, cranberries and hemlocks. In a general way, therefore, the State is divided into the northern slope, or Red-River and Rainy-Lake region, with rich prairies on the west, and heavy timber on the east; the southern slope, or Mississippi Valley, occupied by rolling prairies and woods; and the 21,000 square miles of the eastern slope, abounding in forests, and with valuable mineral resources. The Mississippi Valley occupies two thirds of the State, falling 1,000 feet from Lake Itasca to the Iowa line, in a gentle slope of three feet to a mile. In the lower part of this incline the scenery is very attractive, with groves and copses and oak-openings sprinkled over the undulating grassy plains. From the great central plateau of Minnesota the Mississippi begins its course to the Gulf of Mexico, the Red River of the North starts for Hudson Bay, and the uppermost of the Great Lakes turns its crystal tides toward the Gulf of St. Lawrence and the misty North Atlantic. The watersheds of these three of the noblest river-systems in the world traverse the State in every direction, their long broken ridges rising from 1,000 to 1,800 feet above the sea. There are 1,532 miles of navigable waters in Minnesota, on which ply over 100 vessels, aside from the lake and river steamers enrolled at outside ports.

WHITE-BEAR LAKE.


RED WING.


VERMILION FALLS.

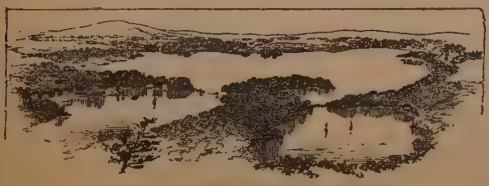
The Mississippi River rises in Lake Itasca, amid the wooded hills of northern Minnesota, 1,575 feet above tidewater. Here it has a width of twelve feet, and a depth of two feet, and sweeps around a great curve, northeast, east, south and southwest. After traversing Pemidji Lake it is 120 feet wide, and beyond Cass Lake it reaches 172 feet. The United States has built four large reservoirs, at a cost of above $600,000, at Cross Lake, Winnibigoshish Lake and elsewhere, resulting in benefit to navigation, and partly averting floods. The head of navigation on the Mississippi River

is at the Falls of Pokegama, near Leech River, and 270 miles from the source. In the next 200 miles below there is an aggregate fall of 165 feet, chiefly at Sauk Rapids and Little Falls, except for which the stream is navigable 400 miles above Minneapolis, for small steamers. The only stretch now navigated is the 165 miles from Aitkin, on the Northern Pacific, north to Grand Rapids, where three steamboats ply up and down, with supplies for the lumber-camps. The shores are bold and rocky below Sauk Rapids, 70 miles from which the stream, now grown to a breadth of 1,200 feet, thunders over St.-Anthony's Falls. Sixty miles further on its way to the Gulf the Mississippi broadens to from one to three miles, for a length of 25 miles; and this beautiful expanse is known as Lake Pepin. Among the legend-haunted localities on its shores are Maiden's Rock, the Sugar Loaf, the Robbers' Cave, and Point au Sable, once the site of a French border-fortress. Frontenac is one of the favorite summer-resorts of the Northwest, and overlooks Lake Pepin and a succession of rocky bluffs and golden grain-fields, melting away into the far-extending prairies. The Mississippi, when it leaves Minnesota, is a noble river, half a mile wide and from five to 20 feet deep; and has afforded 540 miles of navigable waters within her boundaries. In its lower course, the stream winds from side to side of the beautiful valley, which is bordered by fine limestone cliffs, overhung by green domes of foliage and the gleam-flitted corn-ocean of summer. Numberless islands part the crystal waters, some of them large enough for cultivation, and others mere bouquets of trees and shrubbery. It is one of the fairest river-vistas in America, and delights the eyes of thousands of tourists every summer.

FALLS OF MINNEHAHA.

The region about the sources of the Mississippi was explored by Schoolcraft, in 1832, and Nicollet, in 1836; and minutely surveyed by U.-S. Land-Office engineers in 1875. The beautiful Itasca Lake, several miles long, has always been regarded as the source of the Mississippi. A few rods from Itasca is a higher tributary pond of 200 acres, shown on Schoolcraft's and Nicollet's maps, and named *Elk Lake* by the U.-S. Land-Office. 49 years after the discovery of this pond, and long after its shores had been surveyed by the engineers, and its name given, Glazier visited it. An attempt (for some time successful) to re-name it *Lake Glazier* was defeated by the Legislature, which re-affirmed to title *Elk Lake*, ordering that no school-book should be authorized in which any other name appeared.

The Minnesota River rises on the Coteau des Prairies, and flows 440 miles to the Mississippi, at Fort Snelling. In high water steamboats have ascended for 238 miles to Granite Falls. Fifteen miles from its source the Minnesota widens into Big-Stone Lake, stretching for 30 miles along the Dakota frontier, and much frequented in summer by yachtsmen and fishermen. The Red River of the North rises in Elbow Lake, and down to Breckenridge, 200 miles below, it is generally known as the Otter-Tail River. In and along Minnesota's prairies it flows for over 500 miles, through a level belt of rich alluvial mould 40 miles wide, peculiarly adapted for the cultivation of wheat. Nominally, Breckenridge, 400 miles from the Canadian frontier, is the head of navigation, but steamboats rarely ascend beyond Fort Abercrombie, 26 miles below. Far to the north the Red River pours into Lake Winnipeg through six mouths, in a lonely land of marshes, and ultimately its waters enter the icy tides of Hudson Bay. The St.-Croix River is ascended by steamboats as far as Taylor's Falls (52 miles); and the St.-Louis has 21 miles navigable.



DETROIT LAKE.

MINNEAPOLIS: THE POST-OFFICE.

The Falls of Minnehaha, made forever famous by Longfellow's Hiawatha song, are near Fort Snelling, on the little stream flowing from Lakes Harriet and Calhoun, two pretty suburban resorts for the people of St. Paul and Minneapolis. The falls are 59 feet high, amid great beauty of woodland scenery, and although there is but little water the delicate lace-like effect of the cascade makes a fine contrast with the enwalling gorge and the overhanging birch-trees. Near Grand Portage the Pigeon River falls 144 feet in a course of 1,200 feet, between the lofty perpendicular walls of a rocky gorge. The Falls of St. Croix occur in a cañon of trap-rock 150 feet deep. There are picturesque cascades on the Vermilion, Kettle, Kawimbash and many other streams. Near St. Paul is Carver's Cave, where Jonathan Carver made a treaty with the Sioux, in 1767; and two miles above the city the dark halls of Fountain Cave enter the bluffs for over 1,000 feet, and are traversed by a murmuring stream. Nicollet, the explorer, named the Park region *Undine*, on account of its everywhere-present lakes and streams. The lakes are 10,000 in number, of all shapes and sizes, and covering 4,160 square miles. They were left here when the continental ice-sheet melted, in deep basins scooped out by the glaciers. Their waters are clear, cold and crystalline, revealing clean pebbly bottoms, and lapsing gently against rocky shores, over which wave the long grasses of the prairies, or the foliage of the northern forests. Besides their great beauty in the landscape, and their value for fishing, these myriad lochs serve a useful purpose in modifying the temperature. They abound in trout, pike, pickerel, cat-fish, sunfish, perch, rock bass, black bass and other valuable fish; and the neighboring forests contain deer, bears, wolves, foxes, lynxes, beaver, mink, musk-rats, otter, game birds and water-fowl. Among the chief of these lakes are Leech Lake, of 194 square miles; Mille Lacs, 198; Red, 342; Winnibigoshish, 78; and Vermilion, 63. On the north frontier lie Rainy Lake (146 square miles) and the Lake of the Woods (612 square miles), most of whose waters and shores belong to Canada. Steamboats ply on Rainy Lake and River, the latter of which descends in 100 miles to the Lake of the Woods, whose outlet is to the Winnipeg River. Both these lakes have many wooded islands and picturesque bays, and shores in part marshy and abounding in wild rice. Lake Minnetonka stretches its network of many bays amid the Big Woods, 15 miles southwest of Minneapolis, and is fringed with summer-resorts, and traversed by pleasure-steamboats. White-Bear Lake, four miles long, is a favorite summer-home for St.-Paul families, with hotels and villas overlooking its sandy beaches and sky-tinted water and forested islands. Many handsome yachts fly over this forest-fringed loch, which abounds in fish. Northeast from Duluth the iron-bound coast of Lake Superior trends away for 167 miles, before it reaches the Canadian frontier, at Pigeon River. There are but few inhabitants along this stormy shore, where huge cliffs of greenstone and porphyry face the perpetual assaults of the waves. Near Baptism River the Palisades rise in singular columns of rock, from 50 to 80 feet high, and from one to six feet in diameter.

MINNEAPOLIS: CEMETERY LODGE.

MINNEAPOLIS: PUBLIC LIBRARY.

Climate.—The summer resembles that of Philadelphia, as to its hot days, but the nights are cool and refreshing, owing to the high altitude. Maury praised "the steel-blue night skies of Minnesota, so brilliant and

MINNEAPOLIS: EXPOSITION BUILDING.

lovely." The winters are severe, but with a dry and bracing air which enables people to bear their rigors with comfort. Proctor Knott said that the winters of Duluth froze the smoke-stacks off the locomotives. The temperature of Fort Snelling is similar to that of Montreal, Plattsburgh, the Berkshire Hills and the Aroostook Country, but with less than half as much snow. The winter has a comparatively light snowfall, which grows heavier in February and March, followed by a rapid change to the flowers of spring. The mean temperature south of Moorhead and Duluth, and of the Red-River country up to Pembina, is 40°; that of the northern sections is 36°. The healthfulness of this climate has for many years been recognized, and even pulmonary complaints are benefited by it. The larger proportion of the winter days are bright and still, and a temperature of —20° brings no great hardship. But on the few winter days when high winds are added to low temperature, much suffering may result, unless shelter is found.

Farming.—The soil of southern and central Minnesota is a deep grayish-brown or black sandy loam, from two to five feet deep, rich in organic matter and stimulating mineral salts, and endowed with untiring durability. West of the Mississippi extend large areas of rich limestone soil, with argillaceous earth along the Red River. Extensive swamps enfold the head-lakes of the Mississippi, and fill broad areas in the northeast. The extreme north is for the most part rocky and barren and unfit for cultivation. In 1880 11,000,000 acres had not been surveyed, and over 20,000,000 still remained in the hands of the Government. Three fourths of this is arable land. The wheat-crop rarely fails, and its area is continually expanding, especially along the Red-River Valley and the Northern Pacific Railroad. The hard spring wheat of this region is the best in the world, and produces the finest flour. The production of wheat has exceeded 55,000,000 bushels in a year; of oats, 52,000,000 bushels; of corn, 22,000,000 bushels; of barley, 9,000,000 bushels. This rich northwestern garden is prolific also in flaxseed, buckwheat, rye, potatoes, and many varieties of apples, grapes, strawberries and other fruits. Only one fifth of the tillable soil, or one eighth of the soil of the State, is under cultivation, and vast areas still invite the immigrant. After 1873 the exclusive raising of wheat gave place to a more diversified farming, with a larger attention to stock-raising. Minnesota has 316,000 horses, 771,000 cattle, 275,000 sheep, and 410,000 swine. In a single year the product of butter has exceeded 15,000,000 pounds, and that of cheese has passed 1,500,000 pounds.

MINNEAPOLIS: THE UNIVERSITY OF MINNESOTA.

Half of Minnesota rests under the shadow of forests, and extensive lumbering operations have been carried on along the upper Mississippi and St.-Croix and their tributaries, and on the St.-Louis. The State has produced in a year 472,000,000 feet of sawed lumber and 180,000,000 shingles. The Mississippi Valley, north of Minneapolis, usually produces 180,000,000 feet of lumber yearly. In the year 1880 there were standing 6,100,000,000 feet of white pine; and the hardwood forests then covered 3,840,000 acres. Large premiums have been given for tree-planting on the prairies, for wind-breaks and woodlands; and 30,000,000 trees have been set out in the open country.

MINNEAPOLIS: COLLEGE HOSPITAL.

The lumber of the St.-Cloud region and other broad

MINNEAPOLIS: LUMBER OF N. P. CLARKE & CO.

areas of woodlands is handled mainly by the firm of N. P. Clarke & Co., who often have at one time stocks valued at above half a million dollars, in lumber and logs. This firm has its offices in the grand Lumber Exchange, at Minneapolis, and conducts a large and increasing business in connection with the forest products of northern Minnesota, so greatly in demand in the treeless prairie States to the westward. Large areas of pine lands are owned or controlled, and employ 700 men, getting out from 60,000,000 to 90,000,000 feet of lumber every year. N. P. Clarke & Co. are the leading house in the lumber trade of Minnesota. Mr. Clarke is also well-known as the largest holder of improved farm-property in Minnesota, one of his estates, near St. Cloud, having an area of 4,000 acres. In these broad domains he raises many blooded cattle and horses, chiefly as a diversion, although it has also proved to be a profitable business.

Mining.—The great iron mines of the Vermilion and Mesabi Ranges, about 100 miles north of Duluth, are among the productive points of an ore-field extending from the frontier past Ely and Tower to the Mississippi. It is a soft ore, sometimes yielding 67 per cent. of iron, and so low in phosphorus as to come within the Bessemer limit. More than 500,000 tons are sent out yearly by the Minnesota Iron Company alone, and in 1890 870,000 tons, valued at $3,000,000, were shipped from Two Harbors, a port northeast of Duluth.

TOWER: MINNESOTA IRON CO.

The pioneer in mining in the rich Vermilion Range is the Minnesota Iron Company, incorporated in 1882, and with an authorized capital of $20,000,000, of which $14,000,000 are paid in. The mines are near Lake Vermilion, 100 miles north of Duluth, and near them the city of Tower and the village of Soudan have sprung up. Beginning operations in 1884, this powerful company has advanced to a point where it mines and ships yearly more than 500,000 tons of hard red hematite ore, very rich in metallic iron, and for the most part within the Bessemer limit of phosphorus. The mines are worked throughout the year, employing nearly 1,200 men, and provided with a plant including mining and ore-raising machinery, with offices and shops, homes for the men, and a well-equipped hospital and school-house. The Duluth & Iron-Range Railroad, carrying the ore to the port of Two Harbors (20 miles from Duluth), and The Minnesota Steam-Ship Company, with six large steel vessels, are closely connected with the Minnesota Iron Company. Four fifths of the ore goes to the furnaces in Pennsylvania, New York and Ohio, and the balance is used at Chicago. The lake-region in the vicinity of Tower is picturesque, and is becoming a favorite resort for sportsmen and summer-campers.

TOWER: MINNESOTA IRON CO.

Among Minnesota's building-stones are the pink limestone of Kasota, the cream limestone of Red Wing and Faribault, the dolomite of Rochester, and the white stone of Kasson. Fine glass-sand abounds around Faribault; and the clay of Austin and Albert Lea is used by many brick-yards. In the northeast, near Fond du Lac and Sandstone, there are quarries of brownstone, employing many hundred men. Mankato has exten-

sive quarries; and its mills send out 8,000 car-loads of cement yearly, besides great quantities of drain-tile and sewer-pipe, brick, and fire-brick. St. Cloud has a score of quarries of fine gray, white and red granite, from which have been obtained the materials for the *Pioneer-Press* and New-York Life buildings at St. Paul, the Minneapolis Library, and other important structures. Luverne, in the remote southwest, has quarries of red jasper (quartzite), locally used in building, and when polished rivalling Mexican onyx in beauty. The Great Red Pipestone Quarry, where the opening scenes of Longfellow's *Hiawatha* occur, is near Pipestone City, in southwestern Minnesota. Here the Coteau des Prairies rises 450 feet above the surrounding country, and 2,000 feet above the sea, and preserves this height for 130 miles, overlooking the treeless plains until in the remote distance the living green of the land meets the blue of the sky. The stone is near the crest of this mound-ridge, in a grassy valley overlooked by remarkable cliffs; and this is the only place in the world where it is found. It is a compact blood-red stone, easily carved and susceptible of a dull polish; and pipes from this material have been found as far away as New York and Georgia. The Indian tribes used to come to the quarry every year and dig for the precious pipe-stone, dwelling in peace with each other while in this holy land.

TOWER: MINNESOTA IRON CO.

The Population is made up of two different elements, the descendants of the early settlers, coming largely from New England, and the more recent migrations of Swedes and Norwegians, Danes and Russians, Icelanders and Lapps, and other hardy races from Northern Europe. Near New-York Mills dwell 4,000 Finns, preserving their strange Tartar language and literature, and supporting the newspaper called *Amerikan Suometar* (*Finnish-American*). The Indian population, once so powerful, has ceased to be of account. The Sioux have been pushed across the Dakota border and their old land knows them no more. In the north are 9,000 or more of the interesting Chippewa tribe, scattered in bands among the lakes, and taught by Catholic and Episcopal missionaries. The Chippewas in 1889 were persuaded to sell their great reservations at Red Lake, Mille Lacs, Vermilion Lake and elsewhere, receiving lands in severalty, and surrendering their tribal relations. The lands are to be sold by the United-States Government, and the proceeds placed in the Treasury, bearing interest at 5 per cent., which is to be paid out for and to the Indians.

TWO HARBORS: MINNESOTA IRON CO.'S DOCKS.

Government.—The Governor and executive officers are elected by the people every two years. The legislature includes 54 senators and 114 representatives, and meets biennially. The judges are elected by the people. Women vote, and may hold office in school affairs. The National Guard of Minnesota includes two regiments of infantry, of ten companies each, a battery of artillery and a troop of cavalry. There is also the Third Regiment of infantry, armed but not otherwise maintained by the State, being composed of ten independent companies. The State campground is near Lake City, and has rifle-ranges and other military accessories.

MOORHEAD: STATE NORMAL SCHOOL.

FARIBAULT: SHATTUCK SCHOOL.

The Minnesota Institute for Defectives, at Faribault, includes the school for the deaf (150 inmates), the school for the blind (45), and the school for feeble-minded (300). The State Public School for Dependent Children was founded in 1885 at Owatonna. The State Prison, at Stillwater, has 400 convicts, and 200 empty cells. The State Reformatory was erected in 1888-9, on the heights over St. Cloud, and has inexhaustible quarries of granite on its grounds. The State Reform School for boys and girls is at St. Paul. The hospitals for the insane, at St. Peter, Rochester, and Fergus Falls, have 2,400 inmates. The State Soldiers' Home was opened in 1887, in a park of 51 acres given by Minneapolis, on the beautiful point at the junction of the Mississippi River and Minnehaha Creek, and contiguous to the great city parks. The twelve handsome brick cottages, administration building, hospital and chapel, some of which are already constructed and occupied, will have cost over $250,000, making the finest State home for veterans in America. The Soldiers' Orphans' Home is at Winona.

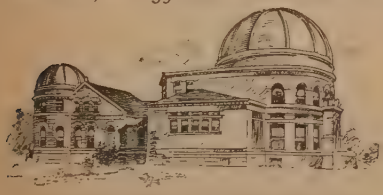
Education is carefully looked after, and wisely and liberally administered. The Minneapolis high-schools have manual training shops. The amount expended yearly is above $4,000,000; and the school-fund amounts to nearly $9,000,000, and will be $20,000,000 when all the land has been sold. The normal schools at Mankato, Winona, Moorhead and St. Cloud have 800 students. The University of the State of Minnesota was decreed in 1857 and opened in 1869, endowed by the United States and supported by the State. The buildings stand on a bluff in an undulating and wooded park of 45 acres, a mile below and in full view of the Falls of St. Anthony, at Minneapolis. There are seven substantial structures, with adequate museums and a library of 24,000 volumes. No provision is made for dormitories. The University has over 1,000 students (one fifth of them women), of whom 580 are in the college of literature and mechanic arts; 130 in the schools of agriculture, art and practical mechanics; 125 in the law-school; and 125 in the medical and dental schools. There are also 40 graduate students. The faculty, instructors and lecturers number 108. The students form a battalion of infantry, with a uniformed company of girls, drilled in military exercises daily, and commanded by an officer of the United-States army. The drill-hall is one of the largest in America, and occasionally serves the purpose of an assembly-hall, seating 3,500 persons. The experimental farm of the Agricultural College is two miles from the University, near Lake Como, and occupies 250 acres. Carleton College was opened at Northfield in 1867, by New-England Congregationalists, to be a great Christian school for the Northwest. It has six good buildings, 19 instructors and 67 students (besides 196 preparatory). The college observatory is one of the best in America, and furnishes the standard time for the Minnesota railroads. Warner & Swasey, of Cleveland (Ohio) designed and built the 16-foot equatorial telescope, the 30-foot steel dome, and also the 17-foot steel dome. The *Sidereal Messenger*, a monthly magazine of astronomy, is published here. The Bishop-Seabury Mission, at Faribault, is the outgrowth of a parish school founded by Rev. Dr. J. L. Breck, in 1858, and includes the Seabury Divinity School,

ST. PAUL: CONVENT OF THE GOOD SHEPHERD.

MINNEAPOLIS: THE MASONIC TEMPLE.

with eight instructors and 30 students in holy orders. The Shattuck School, founded in 1868, as a grammar-school, is named for Dr. G. C. Shattuck, of Boston, one of the chief benefactors of the Faribault Episcopal institutions. It is one of the best training-schools for boys, and has several costly stone buildings, and a beautiful memorial chapel, in a park of 150 acres on the high bluff overlooking the Cannon Valley. The Bishop of Minnesota is chancellor of the school. The students are uniformed like West-Point cadets, and form a battalion of four companies and an artillery platoon, commanded by a regular-army officer. St.-Mary's Hall is another Episcopal institution, occupying a commanding estate of ten acres near Faribault, with the buildings of a well-sustained training-school for girls. The Albert-Lea College for girls is a successful Presbyterian institution on the shores of the beautiful Fountain Lake, 1,300 feet above the sea. St.-Olaf's School, of the Norwegian Lutherans, occupies a beautiful estate of five acres, on Manitou Heights, near Northfield. The Presbyterians conduct Macalester College, at St. Paul, with 25 collegiate students; and the Methodists have for nearly 40 years supported Hamline University, near St. Paul, which has 50 collegiates. The Benedictine monks maintain St.-John's University, at Collegeville, with 18 instructors and 151 students. There is also an ecclesiastical department here, with 35 students. The Lutheran Augsburg Seminary is at Minneapolis; and the Norwegian Evangelical Lutheran Seminary is at Red Wing. Minnesota also has several medical schools and colleges of pharmacy, dentistry and veterinary science.

MINNEAPOLIS:
STONE ARCH BRIDGE OF THE GREAT NORTHERN RAILWAY.



NORTHFIELD: CARLETON-COLLEGE OBSERVATORY.

Religion is strongly entrenched among the Minnesotans, whose North-European and New-England settlers brought their Bible and rituals to these virgin prairies. The Lutherans and Catholics each claim more than 100,000 adherents; the Methodists have 300 churches and 25,000 members; and the Baptists, Presbyterians, Episcopalians and Congregationalists have from 6,000 to 10,000 members each.

Newspapers.—Nine days after the news of the existence of the Territory of Minnesota had been received here, James M. Goodhue, an Amherst graduate, landed at St. Paul with a printing-press, and began the issue of the *Pioneer* April 28, 1849. At that time Minnesota had fewer than 5,000 inhabiants, of whom 840 lived at St. Paul.

Among the great newspapers of the northwest, whose enthusiastic and untiring work has done so much toward the development of Minnesota, none stands higher than the Minneapolis *Tribune*. This journal issues morning and evening, weekly and Sunday editions, from its stately new building, erected in 1890. Its expenses are nearly $1,000 a day; and the employés number 210 in the building, and 300 correspondents. The capital stock of $500,000 is held by Ex-U. S. Senator Gilbert A. Pierce, for four years Governor of Dakota, and editor-in-chief of the Chicago *Inter-Ocean* for seven years; and W. J. Murphy. Pierce is the editor, and Murphy the manager. The Tribune Company owns both the Associated-Press and United-Press franchises for Minneapolis. This is the only high-tariff paper in the Northwest, and fights sturdily for protection. There is hardly a hamlet

MINNEAPOLIS:
THE MINNEAPOLIS TRIBUNE.

MINNEAPOLIS:
GUARANTY LOAN BUILDING.
"NORTHWESTERN MILLER" OFFICE.

between Lake Michigan and the Rocky Mountains which has not its *Tribune* correspondent, always eager to send the fullest and most accurate local news to the high-towered headquarters at Minneapolis. It has probably the best constituencies that can be obtained in its section of the United States.

The foremost flour-manufacturing city in the world is also the seat of the chief journal of the milling business, *The Northwestern Miller*, founded in 1873, as a monthly magazine, and changed soon after to a weekly. Nine years later it passed into the hands of C. M. Palmer, who associated with himself W. C. Edgar as business manager. Thenceforward the paper rapidly outstripped all the other flour trade-journals, and won a high repute for honesty of purpose and independence of character, with a great and unique influence, and a circulation in all countries where flour is made or sold. It is regarded as an authority among millers; and does a yearly business equal to that of all the other American milling journals combined. Its holiday numbers have a world-wide celebrity, for typographical beauty and intrinsic value, and contain special contributions from many of the best-known writers. The success of the paper is largely due to its holding itself as the champion of its readers, and not the paid retainer of its advertisers; and this independence, so uncommon in trade-journals, is re-enforced by great editorial ability and vigilance. Its exquisite advertising pages often indicate how admirably high art can be used to advantage by its patrons.

ST. PAUL:
THE WEST PUBLISHING CO.

The Nation says that St. Paul is "for at least one intellectual purpose, the capital of the United States"; and that purpose is the continuous and current publication of the decisions of the National and State courts of law, opening to the bar of each commonwealth a compendious knowledge of the jurisprudence of the whole country. This great work is in the hands of the West Publishing Company, founded in 1876 by the two brothers, John B. and Horatio D. West, as a progressive law-book house, and incorporated in 1882. The capital is $350,000; the employés number 400; and the plant includes a huge and massive new eight-story brick building at St. Paul, containing complete printing and book-binding establishments and plate-vaults. This is the home of the National-Reporter system, consisting of ten separate publications (published in weekly parts, immediately after the filing of the decisions), one to the United-States Supreme Court, one to the other Federal courts, seven to the decisions of the higher courts in the various sections of the Republic, and one to the intermediate courts of New-York State. These always fresh reports are given in law-book form, from official copies, with all necessary editorial work, and copious annotations, and correlated by careful indexes and digests. They include about 15,000 judicial decisions yearly, covering all American case-law, bringing every new precedent promptly before bench and bar, and thus tending to secure a greater harmony and unity in American jurisprudence. The West Publishing Company of St. Paul are to-day the largest law-publishers in the world, and their reports form an essential part of every American lawyer's library, and an invaluable treasury of modern jurisprudence.

ST. PAUL: THE WEST PUBLISHING CO.

Chief Cities.—The metropolitan centre of the Northwest is at the dual cities of St. Paul and Minneapolis. St. Paul, at the head of navigation on the Mississippi, numbered 20,000 inhabitants in 1870; and Minneapolis and St. Anthony, across the river from each other, had respectively 13,000 and 5,000 inhabitants. After the discovery of the "new process" of making flour, which made Minnesota wheat the most valuable in the world, St.-Anthony's Falls were lined with huge mills, and by 1880 Minneapolis had 46,887 people, to 41,473 in St. Paul. By 1885, the latter had 111,397, and Minneapolis kept forging ahead, with 129,200. The twin cities have grown towards each other until they have practically joined, and their united population finds but half a dozen larger municipalities in America. In their churches and schools, public institutions and commercial buildings, dwellings and stores, they compare favorably with any cities on the continent; and their system of parks is one of the largest and most attractive in the world. St. Paul, the capital of Minnesota, stands on a series of terraces over the Mississippi River, and is the focus of immense railway systems, extending in every direction, and the centre of a tremendous wholesale and retail trade. Beautiful in situation and surroundings, and blest with an invigorating climate, this northern capital has drawn to its gates an enterprising and cultivated population. The manufacturing output of St. Paul amounts to $52,000,000 a year. The meat-packing and slaughtering business of the city exceeds $10,000,000 yearly. It has large distilleries, and many diversified industries, with numerous important firms in the wholesale and jobbing business. St. Paul was named in honor of the Apostle of Nations, by Father Gaultier, a French Catholic priest, who erected a little log church here in 1841. The group of bark-thatched log-huts near this site had previously been known as Pig's Eye, from a one-eyed Canadian rum-seller, who came here in 1838. Among the imposing edifices of St. Paul are the State House, the high-towered City Hall, the first-class buildings of the *Pioneer-Press* and *Globe* newspapers, and the New-York Life-Insurance Company's headquarters. From time to time St. Paul celebrates the advent of its northern winter by a wonderful ice-carnival; constructing a huge palace of ice, with towers and turrets and bastions, illuminated at night by electric lights, and surrounded by thousands of people in brilliant blanket-costumes of red and white, blue and yellow. Toboggan and snow-shoe clubs make merry through the long January evenings; and, finally, the great castle of ice is stormed by torch-bearing columns of these gaily uniformed organizations, and the Ice-King yields to the Fire-King.

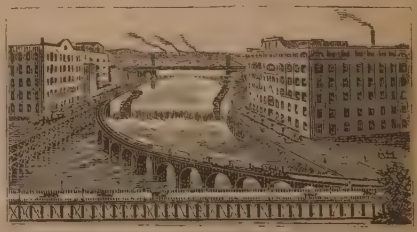
DULUTH: CHAMBER OF COMMERCE.

ST. PAUL AND THE MISSISSIPPI RIVER, FROM DAYTON'S BLUFF.

Minneapolis occupies both sides of the Mississippi, the east side being the site of the older St. Anthony. Three thousand men work in the railroad shops, 2,500 in the iron-works, and 15,000 in other manufacturing industries. The great lumber-mills have made over 340,000,000 feet of lumber in a year. The Falls of St. Anthony (named by Father

MINNEAPOLIS:
NEW-YORK LIFE-INSURANCE CO.

Hennepin, in 1680, for St. Anthony of Padua) have a descent of 25 feet, with 57 feet more in the rapids above. The Mississippi here flows over ledges of limestone, resting on crumbling sandstone: and in order to prevent the destruction of the falls by erosion, a costly inclined plane (or apron) of timber has been built, with a concrete bed under the channel. The first settler in this region came in the winter of 1849–50. The name of the city is a remarkable compound of the Sioux word *Minne*, "Water," and the Greek word *polis*, "city." Among its notable constructions are the Court House and City Hall, being erected at a cost of $2,500,000, and adorned with a noble Gothic tower; the West Hotel, the Masonic Temple, the New-York Life-Insurance Company's building, the wonderful curving arched bridge of masonry across the Mississippi, the handsome fire-proof Public Library and Art Museum, of red sandstone; and the fine bridge across the Mississippi River, built in 1888 by the Keystone Bridge Company (who also constructed the Chicago, Milwaukee & St.-Paul Railway bridge at St. Paul). Minneapolis is the great flour-making city of the world, with more than a score of mills, whose capacity is 38,000 barrels a day. The Red-River wheat is here converted into the finest flour anywhere to be found, and its chief market is in Europe, over 300 miles of laden freight-cars leaving the city every year. In a single year Minneapolis has received 50,000,000 bushels of wheat, being a greater quantity than that which went to Chicago, Duluth or New York. The product of flour has exceeded 7,000,000 barrels in a year. The entire American product is 85,000,000 barrels a year, valued at $400,000,000; and it may be that this is the foremost industry of the Republic.



MINNEAPOLIS: PILLSBURY-WASHBURN FLOUR MILLS.

The Pillsbury-Washburn Flour Mills Company, Limited, is an English corporation, formed in 1889, with a capital of £1,000,000, and with its financial headquarters in London. It succeeded to the business of C. A. Pillsbury & Co., and the Washburn Mill Company, and controls the Minneapolis Mill Company, the St.-Anthony Falls Water-power Company, the Minneapolis & Northern Elevator Company, and the Atlantic Elevator Company. The plant includes the Pillsbury A and B, Palisade, Anchor and Lincoln Mills, three large elevators in Minneapolis, 200 country elevators, and all the water-power at Minneapolis. Employment is given to 1,200 men; and the yearly capacity is 4,000,000 barrels of flour, 176,000,000 pounds of bran, 45,000,000 pounds of middlings, and 35,000,000 pounds of screenings. The mills grind every year 17,000,000 bushels of spring wheat; and the Pillsbury A mill has the greatest capacity of any flour-mill in the world, reaching 7,200 barrels a day. The five mills have a capacity of 14,500 barrels a day, and 300 cars are required daily to take wheat in to them, and to remove the flour and waste. For these properties was paid $6,250,000, three fourths in cash, and the rest in securities. Charles A. Pillsbury is the managing director of this colossal system, whose well-known brand of "Pillsbury's Best" flour is a favorite with housewives everywhere. This is the largest milling plant in the world, and its product is sold wherever flour is used.

ST. PAUL:
NEW-YORK LIFE-INSURANCE CO.

MINNEAPOLIS: THE WASHBURN-CROSBY COMPANY THE "WASHBURN" FLOURING MILLS.

Much of the best patent spring-wheat flour in the world is made by the Washburn-Crosby Company, occupying and operating the great mills founded in 1866, at Minneapolis, by Cadwallader C. Washburn, ex-Governor of Wisconsin. The plant is one of the largest in the world, and includes three mills and two elevators, with ten acres of floor space, where 500 men and a great quantity of ingenious machinery reduce the wheat of Minnesota and the Dakotas to flour, by the French high grinding process and the Hungarian roller process. The capital paid in is $1,500,000; and the daily capacity of the Washburn A, B and C mills is 9,000 barrels of the finest and best flour. The Washburn A mill is said to be the largest in the world, and occupies the site of the mill destroyed in 1878, when 18 lives were lost, and six mills destroyed, by an explosion of flour-dust. The new mill is one of the strongest and best appointed in America, and has a dust-house absolutely safe from explosions. The Washburn-Crosby Company's representative brands (Washburn's Superlative and Washburn's Gold Medal flour) command higher prices than any other brands in the market, and are sold all over the world.

The famous house of F. H. Peavey & Co., wholesale grain merchants, was founded at Sioux City, Iowa, in 1874, by Frank H. Peavey, and now employs 435 men. It ranks in volume of business at the head of all the American firms in this line, and has risen with great rapidity to this commanding place. The assets exceed $1,000,000. The total elevator storage capacity actually owned or directly controlled is 10,000,000 bushels, and includes the great terminal elevators at Minneapolis, Kansas City (Mo.), Washburn (Wis.), and Portland (Ore.), besides 200 country elevators along the railways leading to those points. Their Interior Elevators at Minneapolis, with a capacity of 1,500,000 bushels, are among the largest in the State, and their Duluth Elevator Company's system of connected elevators at West Superior (Wis.), with a capacity of 5,000,000 bushels, is the largest of its kind in the world. The house buys all kinds of grain direct from the farmers in nine States, and carries it on margin, or sells it in large or small quantities, for domestic or foreign use. In 1891 the company opened an elevator at Richford (Vt.), from which to supply New England with wheat, corn and oats. By such scientific system the golden harvests of the Northwest are concentrated and moved, and finally reach the hungry consumers.

MINNEAPOLIS: INTERIOR ELEVATORS, F. H. PEAVEY & CO.

In the long-ago days of 1858, when G. W. Van Dusen began buying wheat in Wisconsin, the grain was handled entirely in sacks, and shipped upon flat-cars. Following the Western movement of the trade, Van Dusen located in 1865 at Rochester, Minn., then at the end of the Chicago & Northwestern line; and as the railway was extended westward he built at the new stations elevators for handling grain in bulk. G. W. Van Dusen & Co. now operate 90 country elevators, buying grain from farmers, and selling it to millers or grain-dealers for future delivery. They also control the Star Elevator Company, whose elevator at Minneapolis has a capacity of 1,800,000 bushels, and stores the grain for grain-dealers, millers and others. In 1888 the stock of

MINNEAPOLIS; G. W. VAN DUSEN & CO.

the two companies was sold to a English syndicate, and the headquarters are now in London; Geo. W. Van Dusen serving as president and general manager of the two companies. At the various elevators 300 men are employed, mainly between Winona (Minn.) and Pierre (S. D.); and G. W. Van Dusen & Co., with its capital of $900,000, ranks as one of the foremost grain-dealing firms in America.

Duluth, "the Zenith City of the Unsalted Seas," occupies a wonderful strategic position, where the Great Lakes reach their westernmost point, and the railways from the rich prairie States converge, bearing enormous freights to this head of navigation. It has an extensive system of deep-water harbors, reached by a ship-canal 1,500 feet long and 300 feet wide, with a depth of 25 feet, and bordered by immense elevators, warehouses and coal-docks. Its receipts rival those of Chicago. So powerful and efficient is the machinery in use on these piers, that a steamer has been loaded with 15,000 bushels of wheat in 2½ hours. Wheat began to come to Duluth in 1871, and more than 2,000 vessels enter and leave the port yearly, bringing over 1,500,000 tons of coal, and carrying away 3,500,000 barrels of flour. The elevator capacity is 21,000,000 bushels of wheat, and the yearly receipts and shipments are about 30,000,000 bushels. The royal water-route eastward from Duluth is an outlet for enormous quantities of merchandise of many kinds. Latterly a number of quaint steel "whale-back" vessels have been built here, for the navigation of the lakes.

DULUTH AND ITS HARBOR, AND LAKE SUPERIOR.

Among the other cities is New Ulm, settled by Germans, and hotly besieged by the Sioux in 1862; St. Peter, on its picturesque terraces over the Minnesota River; Mankato, a prosperous manufacturing town, where the Blue-Earth River enters the Minnesota; and Winona, a great wheat-mart, and the chief city of southern Minnesota, in a beautiful situation on level lowlands under the Mississippi bluffs, with wide and pleasant streets, busy factories, and excellent schools and churches. Faribault is famous for its great Episcopal schools; Fergus Falls, on the Red River, for flouring-mills and other manufactories; Red Wing, for its wheat trade; Northfield, for farm-lands and colleges; St. Cloud, on the Mississippi, for manufacturing and country-trade; and Stillwater, for its general trade, and its pleasant situation on Lake St. Croix.

The Finances of Minnesota naturally find their concentrating points at Minneapolis and St. Paul. The former has recently been made a banking reserve point, and has a banking capital of $9,000,000, and deposits of $26,000,000. One of the foremost financial institutions of the Northwest is the First National Bank of Minneapolis, which was organized in 1863 by the Sidles, then well-known bankers and millers of Minnesota; and the Sidle family now occupy the positions of president, cashier and assistant cashier. The directorate includes a number of the strongest men in the State. The business has proved to be large and successful, and the deposits reach nearly $5,000,000. The paid-in capital is $1,000,000; and the surplus and undivided profits are over $400,000. This is the oldest bank of Minneapolis, and in several particulars is the largest in Minnesota; and its operations extend over a great area of the northwestern country, where it has active correspondents in many cities.

MINNEAPOLIS: FIRST NATIONAL BANK.

The Minnesota Loan & Trust Company, the foremost trust company of the Northwest, organized in 1883 by Eugene A. Merrill and Edmund J. Phelps, occupies its own imposing fire-proof building, erected at Minneapolis in 1884–6, and has a capital of $500,000, with a surplus and undivided profits of $175,000. It transacts the same lines of business as the New York and Philadelphia trust-companies, having the care of estates, and acting as guardian, executor, and trustee under wills, and as a negociator of mortgage-loans for Eastern financial institutions. Such corporations have the advantages of perpetuity, and comparative freedom from the fluctuations of fortune, and insure a more efficient and economical administration of trusts than individuals can attain to. This company has a successful deposit department, and large safe-deposit vaults; and its business has developed on all sides rapidly and solidly. It is required by law to keep on deposit with the State Auditor $100,000, in approved securities. It has handled loans on real estate to a large extent, and has important connections with the leading financial institutions of the East.

MINNEAPOLIS:
MINNESOTA LOAN & TRUST CO.

Duluth in her rapid and solid growth has given rise to a number of financial institutions: including three National banks, three State banks, a savings-bank, and two trust companies, having a total capital of $2,500,000. One of these banks is particularly worthy of notice, the American Exchange Bank of Duluth, with a capital of $325,000, and a surplus of an almost equal amount; its stock selling at the highest figures of any bank in northern Minnesota. Its deposits exceed $1,000,000 and its gross assets approach $2,000,000. It occupies the main floor in the Exchange Building, a handsome structure on the main thoroughfare. The American Exchange Bank was established in 1872 as a savings-bank, with a capital of $25,000, and reorganized in 1879 as a State bank. Its capital has been increased several times, and now reaches $500,000. It is the oldest bank in Duluth, and moreover is the oldest incorporated bank at the head of the chain of great lakes. Its officers and directors are among the best known citizens, its president being H. M. Peyton, and its cashier, James C. Hunter. A. R. Macfarlane who was instrumental in its original organization in 1872 has ever since been connected with it, and is now manager. It does a large general banking business and also an extensive amount in collections; banks and business houses throughout the country making use of the American Exchange Bank for collections in this section. It has been uninterruptedly successful from the start, always paying yearly dividends of ten per cent.

DULUTH:
AMERICAN EXCHANGE BANK.

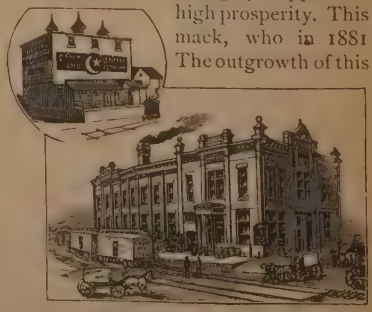
The Railway system of Minnesota began its operations in 1857, when the Minnesota & Pacific line received its charter; and the first train was run in June, 1862, over the ten miles of the St.-Paul & Pacific route, between St. Paul and St. Anthony. By 1864 it reached Elk River; by 1867, Lake Minnetonka; by 1870, Benson; and by 1871 it entered Breckenridge, 217 miles from St. Paul, on the Red River of the North. The Northern Pacific line was chartered in 1864, and reached Moorhead on the Red River in 1871. In 1872 trains began to run on the St. Paul & Chicago line, to Winona and La Crosse. The Minnesota Valley line incorporated in 1864, reached Shakopee in 1865 and Le Sueur in 1867.

ST. PAUL:
GREAT NORTHERN RAILWAY GENERAL OFFICES.

LAKE MINNETONKA. HOTEL LAFAYETTE.

The principal thoroughfare of Minnesota is the Great Northern Railway Line, part of which is the former St.-Paul, Minneapolis & Manitoba. The railway history of this State, particularly that of St. Paul and Minneapolis, begins with this road, it being the first to enter the Twin Cities. It now binds them together with four tracks, over which it runs from 80 to 100 trains a day from magnificent Union Depots. On its various lines in Minnesota are to be found some of the most delightful pleasure and fishing resorts in America, including Lake Minnetonka, with Hotel Lafayette, the largest summer house in the West. Indeed, every station in the Park Region is the centre for countless lakes. Its real growth began a little over ten years ago, when President James J. Hill assumed active management. Its lines now radiate in all directions westward of St. Paul, Minneapolis, Duluth and West Superior; and at Puget Sound will touch the tides of the Pacific and connect its waters with the Atlantic by a route via Lake Superior (and also via St. Paul), the shortest by 250 miles of any trans-continental line. The Great Northern is not only the shortest line, but its average grade is the easiest of any in the West. It is built along the only parallel across the Continent possible of continuous settlement, through a veritable empire of agricultural, grazing, mineral and timber lands. This proud achievement was consummated without Government subsidy or local aid. The Great Northern is the principal carrier of original wheat in the world, delivering every year tens of thousands of cars to Lake-Superior ports for shipment abroad, and to the flour-mills of Minneapolis, St. Paul and Duluth. It not only hauls out the wheat of the Red-River Valley and the Dakotas, to the mills, and the corn of Iowa and Nebraska to the vessels of Lake Superior, but it is the artery through which flow the products of the ranges, mines and forests of Montana, Idaho, Washington and Oregon, its direct traffic covering a region larger than the original area of the United States.

The dairy business in the grass counties of southern Minnesota has largely supplanted wheat-culture, bringing to thousands of farmers a high prosperity. This is largely due to Charles E. Marvin and E. A. Camack, who in 1881 founded the creamery business, in Rochester, Minn. The outgrowth of this enterprise (still under the same management) is the Crescent Creamery Company, with a capital of $300,000, and probably the largest concern of the kind in America, conducting 30 establishments, with large plants in Minnesota at St. Paul and Rochester, and in Washington and Tacoma on the Pacific Coast. The company buys the milk from 150,000 cows, and its yearly sales reach $2,000,000, including much of the milk used in St. Paul and Minneapolis, millions of eggs, and enormous quantities of butter and cheese. Butter is made from cream extracted at the shipping stations by the centrifugal process; churned by the dry granular process, in numerous revolving churns, each yielding about 400 pounds; worked into individual squares, cloth-bound two-pound blocks, rolls, firkins and in boxes; and then stored in a temperature of 33°, and shipped in refrigerator cars all over the Union, and to the Pacific Coast and Europe. The high quality of the goods bearing the Crescent Company's brand has been the main cause of the remarkable success.



ST. PAUL: CRESCENT CREAMERY COMPANY.

HISTORY.

According to tradition, the ancient inhabitants of Mississippi were the Alabama and Muscogee Indians, fleeing from Cortez in Mexico. They had hardly become accustomed to the land of their exile when De Soto's army of hidalgoes, men-at-arms and monks entered their territory, and wintered in Pontotoc County. After suffering the loss of 50 soldiers in a night attack by the Chickasaws, De Soto stormed the Indian town of Alibamo, on the Tallahatchie River, at the close of a hot and murderous battle. Even after the Spanish army had turned southward from Arkansas, to retreat by boats to the Gulf, the gallant Mississippians attacked their flotilla all along the river, in fleets of canoes, and inflicted serious losses upon them.

More than a century passed before Marquette and Joliet (in 1673) visited these shores, passing from Quebec up to the Great Lakes, and descending the Wisconsin and Mississippi. They were kindly received by the Chickasaws, and abode with them many days. Nine years later La Salle followed the same route, and visited the Natchez Indians, taking possession of the country in the name of France; and not long afterward a brave priest established a Catholic mission among the Tunicas. In 1699, an expedition sent out by Louis XIV., composed of 200 French-Canadians, and headed by Iberville and Bienville, occupied Ship and Cat Islands, and erected a fort at Biloxi. Later, they laid out the town of Rosalie, on the site of Natchez. A settlement arose here in 1716; and 13 years afterward the Indians massacred 200 of its citizens, and carried 500 into captivity. French and Choctaw armies marched against the Natchez tribe, and in a series of arduous campaigns entirely destroyed it, killing the bravest warriors, and sending hundreds of others to San Domingo, as slaves. The Chickasaws dwelt in northern Mississippi, and repulsed two campaigns of Bienville. In

STATISTICS.

Settled at	Fort Rosalie.
Settled in	1716
Founded by	Frenchmen.
Admitted as a State,	1817
Population in 1860,	791,305
In 1870,	827,922
In 1880,	1,131,597
American-born,	1,122,388
Foreign-born,	9,209
Males,	567,177
Females,	564,420
In 1890 (U. S. Census),	1,289,600
White,	539,703
Colored,	747,720
Population to the square mile,	24.4
Voting Population (1880),	238,532
Vote for Harrison (1888),	30,096
Vote for Cleveland (1888),	85,471
Net State Debt,	$3,246,183.57
Assessed Valuation of Property (1890),	$158,000,000
Area (square miles),	46,810
U. S. Representatives (1893),	7
Militia (Disciplined),	1,525
Counties,	75
Post-offices,	1,357
Railroads (miles),	2,332
Vessels,	191
Tonnage,	11,074
Manufactures (yearly),	$7,495,802
Operatives,	5,827
Yearly Wages,	$1,192,645
Farm Land (in acres),	15,883,251
Farm-Land Values,	$92,844,915
Farm Products (yearly)	$63,701,844
Public Schools, Average Daily Attendance,	193,119
Newspapers,	163
Latitude,	30°13′ to 35° N.
Longitude,	88°7′ to 91°41′ W.
Temperature,	3° to 101°
Mean Temperature (Jackson),	64°

TEN CHIEF CITIES AND THEIR POPULATIONS. (Census of 1890.)

Vicksburg,	13,373
Meridian,	10,624
Natchez,	10,101
Greenville,	6,658
Jackson,	5,920
Columbus,	4,559
Aberdeen,	3,449
Yazoo City,	3,286
Biloxi,	3,234
Wesson,	3,168

1736 he led 550 French and Swiss soldiers and 600 Choctaws in boats up the Tombigbee River, to Cotton-Gin Port, and marched against Ackia, where the Chickasaws defeated the allies with terrible loss. At the same time D'Artaguette and 130 French soldiers, and many Miami and Iroquois Indians, advanced from Illinois to Chickasaw Bluffs and Pontotoc, and there suffered defeat at the hands of the Chickasaws, the commander, with his priest and 16 other officers and soldiers, being burned at the stake. In 1752 the Marquis de Vaudreuil was beaten by the same indomitable tribe, and threw his artillery into the river at Cotton-Gin Port, where cannon have since been found.

Most of Mississippi was included in the vast cession of territory made by France to England by the Treaty of Paris, in 1763, and belonged to the Province of Illinois. The British province of West Florida at first included the region south of 31°; and afterwards the region south of the latitude of the mouth of the Yazoo. Willing's American detachment suffered a repulse at Natchez in 1778, and the Tory inhabitants rebuilt old Fort Panmure, and held it for England. In 1779 Don Bernardo de Galvez captured Natchez, at the head of a force of Spanish infantry and American volunteers. After the Spaniards had held Mississippi for three years, Alston, Lyman, Phelps and other New-England and Carolinian immigrants and royalists bombarded and captured Natchez; and then, assailed by the Spaniards, retreated to Savannah in a five-months' march across the country, suffering terrible losses and hardships. When West Florida was confirmed to Spain by treaty, and the United States occupied the eastern side of the Mississippi Valley down thus far, the two powers debated for years as to whether their frontiers lay at 31°, or the Yazoo. Spain yielded, in 1798, and Congress formed the disputed territory, extending from the Mississippi to the Chattahoochee, into the Mississippi Territory. In 1800 the present State lay in several jurisdictions; from the Gulf to 31°, in Spanish Louisiana; from 31° to the parallel of the Yazoo, in Mississippi Territory; and from the Yazoo northward nearly to Tennessee, in Georgia. Congress bought out the claims of Georgia in the West in 1802, and added the domain to the South-Carolina cession, naming the whole the Territory South of the River Ohio, and in 1804 adding it to Mississippi Territory. The region south of 31° was annexed to the United States by the Louisiana Purchase. In 1812 this coast-strip became a part of Mississippi Territory, which included also Alabama. The latter was set apart five years later, leaving Mississippi with her present boundaries.

A COTTON GIN.

The Choctaws of the south and the Chickasaws of the north were deported across the Mississippi River in 1832-4, and then a great influx of immigration occupied their deserted fields.

Mississippi was one of the first States to attempt secession, and as early as January, 1861, planted artillery at Vicksburg to command the river. Late in 1861 United-States naval expeditions captured Biloxi and Ship Island. In 1862 Beauregard's Confederates yielded Corinth to Halleck's National troops, after a long siege; and in October Gens. Price and Van Dorn assailed the town with 35,000 Confederates, and were terribly defeated by Rosecrans, sacrificing 9,000 men. At Iuka the two armies lost 1,000 men each. Vicksburg, on its high bluffs, was the key of the Mississippi, and bristled with fortifications and cannon, which foiled Farragut, in June, and Sherman in December, 1862. In April, 1863, Grant crossed the river at Bruinsburg; captured Grand Gulf and Jackson; defeated Pemberton's 25,000 troops at Champion Hills; and on July 4th received the surrender of Vicksburg, with 27,000 soldiers. In this campaign, which practically ended the war in Mississippi, Grant lost 8,000 men, and the Confederates lost 9,000. In 1865 Mississippi repealed the ordinance

WHITWORTH: A COTTON FIELD.

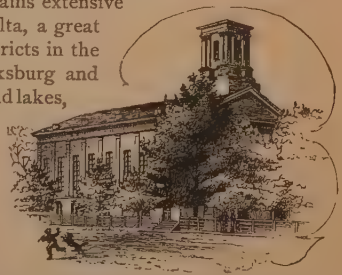
of secession, and abolished slavery. It adopted a new constitution in 1869; and in 1870, having ratified the 14th and 15th Amendments, its representatives were admitted to Congress. The property valuation was lowered between 1860 and 1870, by the war and the liberation of the slaves, from $607,324,911 to $209,197,345. The State adopted a new constitution on November 1, 1890.

The Name of the State signifies "Great River." It is an Algonquin compound word, originally spelled *Meché Sébé*, changed by the Chevalier Tonty to *Miché Sépe*, by Père Laval to *Michisepe*, by Père Labatt to *Misisipi*, and by Marquette to *Mississipi*. The popular names of Mississippi are THE BAYOU STATE, and *The Border-Eagle State*.

The Arms of Mississippi bear an American eagle, with outspread wings, holding arrows in one talon and an olive branch in the other, on a round silver field.

The Governors of Mississippi have been: *Territorial:* Winthrop Sargent, 1798–1801; Wm. C. C. Claiborne, 1801–5; Robert Williams, 1805–9; David Holmes, 1809–17. *State:* David Holmes, 1817–19, and 1825–7; Geo. Poindexter, 1819–21; Walter Leake, 1822–5; Gerard C. Brandon, 1827–31; Abram M. Scott, 1832–3; Hiram G. Runnels, 1834–5; Chas. Lynch, 1835–7; Alex. G. McNutt, 1838–41; Tilghman M. Tucker, 1842–3; Albert G. Brown, 1844–8; Jos. W. Matthews, 1848–49; John A. Quitman, 1850–1; John I. Guion (acting), 1851; Jas. Whitefield (acting), 1851–2; Henry S. Foote, 1852–4; John J. McRae, 1854–7; Wm. McWillie, 1858–9; John J. Pettus, 1860–3; Chas. Clarke, 1864–5; Wm. L. Sharkey (appointed), 1865–6; Benj. G. Humphreys, 1866–70; Adelbert Ames (appointed), 1868–70; Jas. I. Alcorn, 1870; R. C. Powers (acting), 1870–4; Adelbert Ames, 1874–6; John Marshall Stone (acting), 1876–7; John M. Stone, 1878–81; Robert Lowry, 1882–9; and John M. Stone, 1890–6.

Descriptive.—The Mississippi lowlands cover 7,460 square miles, and the remaining five sixths of the State are divided between rolling and level uplands, with smooth prairies in the northeast. The streams descend gradually, and their valleys are bordered by hummocks or second bottoms, while in their lower reaches they often flood the country for miles. The elevation of the uplands varies from 150 to 800 feet, and they fall away very gradually to the south and southwest. The extreme south contains extensive marshes and immeasurable pineries. The Yazoo Delta, a great ellipsoid, 160 miles long, is one of the most fertile districts in the vast valley of the Mississippi. It lies between Vicksburg and Tennessee, covering 6,250 square miles, with swamps and lakes, bayous and prairies and great woods. The cultivated lands lie on the low ridges and along the lakes and rivers, the rest being cane-brakes and cypress-swamps. The Delta would lie deep under water every spring but for the levees, protecting part of these wonderfully fertile lands. The two levee districts have efficient boards of commissioners to build and guard the levees, raising the funds by a tax on each bale of cotton. The gray and white clays of the northeast and the region of long-leaf pine are unproductive; but the rest of Mississippi is of remarkable fertility, and half of it remains unused.



CLINTON: MISSISSIPPI COLLEGE.

No part of the 90 miles of Mississippi coast lies on the Gulf of Mexico, whose waves beat along a range of low islands from ten to 30 miles off-shore. Five light-houses rise from these lonely sand-bars. Ship Island is a low bank of white sand, seven miles long, with groves at its eastern end, and on the west the best harbor of the Mississippi coast. This was the headquarters of the West-Gulf Blockading Squadron and of Gen. Butler's army, before the capture of Pensacola and New Orleans. Inside the islands lies the placid

Mississippi Sound, in places deep enough for large ships, and bordered by low bluffs of shining white sand. The shallow harbors of Mississippi City, Biloxi and Bay St. Louis are mainly occupied by summer-resorts, among the water-oaks and live-oaks, magnolias and cedars, with the solemn pines on one side and the opalescent waters of the Sound on the other. Pass Christian is a favorite pleasure-resort, with a fine hotel, two hours from New Orleans and three hours from Mobile. Ancient Biloxi rambles over a sea-fronting line of sand-hills, with shell-roads leading inland; and is a happy haven for sufferers from consumption and asthma. In the summer great excursion-parties from New Orleans crowd its hotels and restaurants, and go fishing among the shadowy islands off-shore. The oysters and oranges of Biloxi are equally celebrated for their flavors, and the place has canneries for oysters and shrimp. The waters outside abound in red-fish, black-fish, red snappers, pompano, Spanish mackerel, sheepshead, trout, and other food-fish. Ocean Springs, half a mile from the sea-beach, is a resort much visited by the people of New Orleans and Mobile, who can enjoy in the same hour fine salt-water bathing and the medicinal virtues of saline-chalybeate waters. Mississippi also has several popular inland pleasure-resorts. Cooper's Well is one of the 30 chief American springs described in the *Encyclopædia Britannica*, where it ranks as an iron water, beneficial for dyspepsia, dropsy, anæmia and other diseases. Castalian Springs pours out red sulphur waters, strongly charged with carbonic-acid gas and sulphuretted hydrogen. Brown's Wells, in Copiah County, are noted for their curative properties.

PASS CHRISTIAN: A STREET SCENE.

The Mississippi River flows along the western frontier, held in its channel by immense and costly levees. The Tennessee River forms the northwestern frontier for ten miles. The chief affluent of the Mississippi from this State is the Yazoo River, formed by the confluence of the Yalobusha and Tallahatchie, and flowing 264 miles southwest to the great river, seven miles above Vicksburg. It is navigable throughout, and has a fleet of ten steamboats, with a yearly commerce of $3,500,000, including over 50,000 bales of cotton. The Tallahatchie has a yearly commerce of $1,500,000 in cotton, supporting nine steamboats, running up 100 miles to Sharkey's Landing, and sometimes to Coldwater, 165 miles. The Yalobusha has been ascended by steamboats to Grenada. Tchula Lake is a bayou of the Yazoo, 67 miles long, and sending out yearly 14,000 bales of cotton on its four steamboats. The Big Black River, 400 miles long, enters the Mississippi at Grand Gulf. The Pearl River has had several Government parties at work for many years, from its mouth to Jackson (310 miles) and Edinburgh (440 miles), and the yearly commerce now amounts to $1,600,000, employing eleven steamboats. The Tombigbee River flows off into Alabama, the head of winter-navigation being at Aberdeen, and at favorable seasons steamboats may reach Fulton. Steamers ascend the Noxubee to Macon, 91½ miles. The Pascagoula River is navigable 85 miles to the confluence of the Leaf and the Chicasaha, for light vessels.

The Geology of Mississippi shows a small sub-carboniferous district in the northeast, succeeded by Cretaceous formations. Half of the State is Tertiary, lying between the Cretaceous and the Mississippi bottoms, and to within 20 miles of the Gulf. Although contiguous to the rich metalliferous States of Alabama and Tennessee, Mississippi has no mines, and her limestones and sandstones, marls and fire-clays, have but little economic value.

The Climate is almost sub-tropical, especially along the Gulf, where the freezing-point is rarely reached. The summer season extends from May 1st to October 1st, with the thermometer from 61°

WHITWORTH: WHITWORTH COLLEGE.

to 95° (with a mean of 81°); but the heat is tempered by variable winds, especially those from the Gulf. The mean annual temperature of the Gulf towns is 68°; of Vicksburg, 65°; of the north, 61°. The rainfall varies from 65 inches on the seaboard to 60 inches in the north, and mostly occurs in winter and spring. The death-rate, 13 yearly in 1,000, is less than those of New York, Massachusetts, Virginia, and Pennsylvania. The mortality of the whites is only 10 in 1,000. Lung and throat diseases and catarrh never originate here, and are relieved when brought hither. Diphtheria is almost unknown; and the yellow fever has not entered the State since 1878.

COLUMBUS: GIRLS' INDUSTRIAL INS. AND COLLEGE.

Agriculture is pre-eminently the industry of Mississippi, whose responsive soil and stimulating climate yield a great profusion and variety of the fruits of the earth. More than four fifths of the working population are in farming pursuits. The great plantations have given way to small farms, the 43,000 estates enumerated in 1860 having become 125,000 in 1890. There are 1,000,000 acres of Government land, mostly in the long-leaf-pine region towards the Gulf; and the railways also have large tracts for sale, at low prices.

The cotton crop of 1860 reached 1,200,000 bales, but the next five battle-years caused the product to fall off greatly. By 1880 it had reached 960,000 bales, worth $43,000,000, and the State stood foremost of all in this product. It is now second to Texas. One third of this great wealth-making crop is produced by white men's labor, mainly in the upland counties, where the climate is salubrious; and the rest by negroes, mainly in the Delta. 28,000,000 bushels of cotton-seed are harvested each year. The corn-crop is about 25,000,000 bushels. Mississippi also yields yearly 3,500,000 bushels of oats, 2,000,000 of rice, 700,000 of potatoes, and 500,000 of wheat. Figs, oranges, and Scuppernong grapes grow along the Gulf Coast; blackberries overrun the wild lands everywhere; and strawberries and melons and other fruits and vegetables are sent to the cities. Over 1,200 car-loads have been shipped North on one railway, in a single season.

OXFORD: UNIVERSITY OF MISSISSIPPI.

The planters long waged war on "General Green," as they called the grasses; but the unprofitableness of exclusive cotton-culture has turned their attention to pasturage. The valuable Bermuda grass yields five tons of hay to the acre; Japan clover has spread over the State with marvellous rapidity; and crab-grass and broom-sedge also afford very good forage. The yearly hay-crop is 60,000 tons. The live-stock includes 104,000 mules, 99,000 horses, 1,636,000 hogs, 440,000 cattle, and 200,000 sheep. Here are the largest dairying interests in the Gulf States; and many herds of valuable Jersey, Short-Horn and Holstein cattle.

Forests cover three fifths of Mississippi, and include oak, red cedar, black walnut, poplar, cottonwood, tupelo and other trees. The long-leafed yellow-pine fills most of the country south of the Meridian-Vicksburg line. The pine-woods alone are valued at $250,000,000. The cypress and cane of the swamps; the chestnut and walnut, beech and hickory of the bluffs; the red gum of the Yazoo; all have an economic value.

Government.—The governor and six executive officers are elected for four years. The legislature of 45 four-years' senators and 133 four-years' representatives, includes a number of colored members. The three Supreme-Court justices, nine circuit judges and twelve chancellors are appointed by the governor. No atheist may hold office. The State House is a dignified old classic building, with a fine portico. The militia, or National Guard, includes three regiments and two battalions of infantry and several light batteries, armed by the National Government. The valuation of the State increased 50 per cent. between 1880 and

VICKSBURG.

1890. The State Lunatic Asylum, the Institute for the Deaf and Dumb, the Institute for the Blind, and the Penitentiary are all at Jackson. The East-Mississippi Insane Asylum is at Meridian. The hospitals at Vicksburg and Natchez receive subsidies from the State. The Penitentiary is kept only for sick or aged or life-time convicts, the others being leased to outside contractors. A Board of Control, consisting of the three railroad commissioners, the Governor and Attorney-General, manage the Penitentiary, and lessees are held to strict account for the humane treatment of the convicts. After 1894, the leasing system will be abolished.

Education is free to all children between five and 21, and is supervised by a State Board and appointed county superintendents and elected boards of trustees. The State normal schools are at Holly Springs, and Tougaloo for colored students; and there are private normal schools. The University of Mississippi, chartered in 1844, has 250 students, a library of 12,000 volumes (in a handsome new Elizabethan building), and an endowment exceeding $500,000, on which the State pays interest. There are undergraduate courses in art, science and philosophy; post-graduate courses; and a law school. The University is near Oxford, and has three dormitories, an observatory, gymnasium, and other buildings, with a domain of 640 acres. Students (even of other States) receive tuition free, the expenses of the University being met by the State. The Agricultural and Mechanical College, for white boys, supported also by the State, and on the military system, is at Starkville; and with it is connected the United States Experimental Station; about 350 students. The Alcorn Agricultural and Mechanical College, in the southwest, has 240 colored students. The Industrial Institute and College for the Education of White Girls of Mississippi was opened at Columbus, in 1885, and has upwards of 300 students in the usual branches, besides drawing and wood-carving, stenography and type-writing, book-keeping and telegraphy, printing and dress-making. The State supports the college and gives free tuition to 300 students. All the girls are uniformed in navy-blue dresses, sailor-hats and tan gloves. Mississippi College, founded in 1830, at Clinton, is a Baptist institution. The colored people send their young men and women to Alcorn College, to Rust University at Holly Springs, and to the normal schools at Holly Springs, Tougaloo and Jackson, and the Meridian Academy.

HOLLY SPRINGS: RAILWAY STATION.

The National cemeteries in Mississippi are sacred to the Union soldiers who died on her soil, while reclaiming her for the great Republic. That at Vicksburg contains 16,618 graves; and the Corinth National Cemetery has 5,719.

Chief Cities.—Vicksburg has enjoyed a large growth since her mournful siege left her in ruins, and possesses excellent foundries and machine-shops, and receives 60,000 bales of cotton yearly. Except at high water, steamboats are obliged to land two miles below; and a railroad runs thence to the city. Here the Walnut Hills extend along the river for miles, with a height of 500 feet, affording the most picturesque scenery on the lower Mississippi. Jackson, the capital, is on the Pearl River, in an undulating region of rich yellow loam, prolific in corn and cotton, vegetables and fruits. Natchez is a pleasant city, with its public buildings and homes in Natchez-on-the-Hill, stretching along a bluff 200 feet high, with a park looking down upon the Mississippi, and its wharves below, in Natchez-under-the-Hill.

The railroads of Mississippi cost $60,000,000, and include several great lines. Manufactures employ 6,000 persons, with a yearly product of $7,500,000.

HISTORY.

Missouri fell to the share of France, by virtue of the discoveries of Marquette and Joliet, in 1673, and La Salle and Hennepin, in 1682. The vast empire thus discovered and claimed for France was colonized from Canada, whose daring explorers in 1705 ascended the Missouri River to the Kansas. A settlement arose at St. Genevieve about the year 1750; and in 1720 the French founded Fort Orleans, not far below the site of Lexington, for the Indian fur-trade, and to hold in check the Spaniards, advancing from Mexico. Within a few years the Missouri Indians destroyed this establishment.

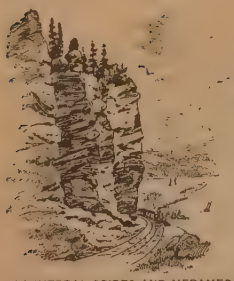
The site of St. Louis was selected by Pierre Laclède Ligueste, who sent Auguste Chouteau to found a village there, in 1764, for the headquarters of Maxent, Laclède & Cie. Many French families exiled themselves from Illinois when that province passed into English hands; and under the benign laws of Spain they dwelt along the Missouri shore, trading in furs with the northwestern Indians, and farming along the rich bottom-lands. In 1780 the British governor at Michilimackinac sent 150 soldiers and 1,500 Indian allies to attack the little Spanish capital, but they succeeded only in killing and capturing a few score people, without occupying the town. After this (*l'année du coup*) St. Louis girded herself with stockades, bastions and martello towers; and Don Eugenio Pourré (in 1781) struck back at the invaders by successfully leading 65 Spanish and French soldiers and a force of Indians against Fort St. Joseph, in the Michigan country. The Spanish lieutenant-governors resident at St. Louis were Don Pedro Piernas (1770–5), Francisco Cruzat (1775–8 and 1780–8), Don Ferdinando Leyda (1778–80,) Don Manuel Perez (1788–93), Zenon Trudeau (1793–8), and Delassus. Daniel Boone, the pioneer of Kentucky, became a Spanish subject in Missouri in 1797, and was made Syndic of the Femme-Osage district. In 1769 Blanchette founded St. Charles, as a

STATISTICS.

Settled at	St. Genevieve.
Settled in	1755
Founded by	Frenchmen.
Admitted as a State,	1821
Population in 1860,	1,182,012
In 1870,	1,721,295
In 1880,	2,168,380
American-born,	1,956,802
Foreign-born,	211,578
Males,	1,127,187
Females,	1,041,193
In 1890 (U. S. Census),	2,679,184
White,	2,524,468
Colored,	154,131
Population to the square mile,	31.5
Voting Population,	541,207
Vote for Harrison (1888),	236,257
Vote for Cleveland (1888),	261,974
Net State Debt,	$8,439,749.20
Assessed Valuation of Property (1890),	$786,000,000
Area (square miles),	69,415
U. S. Representatives (1893),	15
Militia (Disciplined),	2,161
Counties,	115
Post-offices,	2,491
Railroads (miles),	6,004
Vessels,	241
Tonnage,	135,853
Manufactures (yearly),	$165,384,005
Operatives,	63,995
Yearly Wages,	$24,309,716
Farm Land (in acres),	28,177,990
Farm-Land Values,	$375,633,307
Farm Products (yearly)	$95,912,660
Public Schools, Average Daily Attendance,	376,977
Newspapers,	849
Latitude,	36° to 40°30′ N.
Longitude,	89°2′ to 95°44′ W.
Temperature,	—22° to 106°
Mean Temperature (St. Louis),	55°

TEN CHIEF CITIES AND THEIR POPULATIONS (CENSUS OF 1890).

St. Louis,	451,770
Kansas City,	132,716
St. Joseph,	52,324
Springfield,	21,850
Sedalia,	14,068
Hannibal,	12,857
Joplin,	9,943
Moberly,	8,215
Carthage,	7,981
Nevada,	7,262



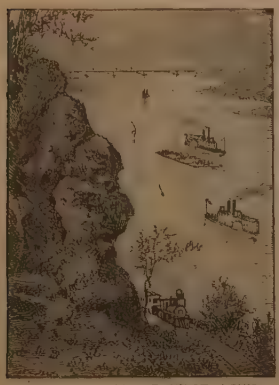
CATHEDRAL SPIRES AND MERAMEC RIVER.

military post; and a Spanish fort rose at New Madrid in 1786. In March, 1804, Don Carlos Dehault Delassus transferred Upper Louisiana to Capt. Amos Stoddard, U. S. A., who brought a detachment of troops across from Illinois, receiving the province in the name of France, and assuming it the next day for the American Government. The Louisiana Purchase made by the United States from Napoleon in 1803 included Missouri, which for a time lay in the District of Louisiana, afterwards the Territory of Louisiana. The Territory of Missouri, founded in 1812, covered Arkansas, Missouri, Iowa, western Minnesota, the Indian Territory, Dakota, Nebraska, and most of Kansas, Colorado and Wyoming. It parted with Arkansas in 1819. In 1821, after the State of Missouri came into being, the Territory of Missouri covered the remainder of the former Territory, until 1834, when it became obsolete.

Cote sans Dessein (now Barkersville) and the American colony on Loutre Island were in 1807 the Far West of all white men's settlements. In 1810, 150 Kentucky families settled about Franklin, in Howard County, where a number of them were killed by the Indians. In 1808 Chouteau and Lewis effected a treaty with the Osages, pushing back their frontier to Fort Clark, above Lexington, and gaining millions of acres for settlement. Then, and after the War of 1812, thousands of immigrants poured in from Kentucky, Tennessee and the Carolinas. The application of Missouri to be admitted to the Union, in 1818, was followed by a long period of angry discussion, the Northern States being sternly opposed to the creation of another slave-holding commonwealth, while the Southern people maintained that since slavery had always existed in Missouri under the French and Spanish governments, it could not legally be abolished. Finally, the famous Missouri Compromise went into effect, bringing the new State into the Union with her existing social system, but excluding slavery from all the rest of the Louisiana Purchase north of 36° 30′. The Platte Purchase, which included Platte, Buchanan, Andrew, Nodaway, Holt and Atchison counties, was acquired from the Sacs and Foxes in 1836 7, and annexed to Missouri, with the consent of Congress. It covers a large area in the northwestern portion of the State.

ST. LOUIS: THE MERCHANTS' BRIDGE.

The first steamboat in Missouri waters was the *Enterprise*, in 1815; the first to reach St. Louis was the *Gen. Pike*, in 1817; the first to ascend the Missouri was the *Independence*, which reached Franklin and Chariton in 1819.



MISSISSIPPI RIVER, BELOW ST. LOUIS.

The First and Fourth companies of the Second Missouri Volunteers fought in the Seminole War, in Florida, and defeated the savages in a bloody battle at Okeechobee Lake. The chief events of the following years were the deadly visitations of the Asiatic cholera, in 1832, 1838, 1839, and 1849; the receptions to Lafayette (in 1825) and Daniel Webster (in 1837); and the settlement of the Mormons at Independence and Far West, in 1831–4, and their forcible eviction from the State. When the Mexican War broke out, three Missouri regiments under Kearney marched along the Santa Fé trail, 900 miles, in 50 days, and changed New Mexico from a Mexican province to an American Territory. Then these brave Missouri troopers rode through Chihuahua,

winning several battles, and down to the Gulf of Mexico. At the outbreak of the late civil-war, the governor endeavored to lead Missouri into the company of the Confederate States, and a part of the General Assembly (not a quorum) declared "the ties heretofore existing between Missouri and the United States of America, dissolved." But the people remained faithful to the Stars and Stripes, and elected a convention (by 80,000 majority) which voted heavily against Secession, and declared the Governor and General Assembly to be deposed. Governor Jackson thereupon proclaimed the State to be "a sovereign, free and independent Republic," and large Confederate armies assembled in the southwest, marching up from Arkansas and Texas. With four regiments of Missouri Unionists, Lyon broke up the encampment of neutral State troops at St. Louis; occupied Jefferson City and Boonville; and pressed the Southern forces into the Ozark Mountains. He then marched against the enemy in the South, and was killed at Wilson's Creek, where his 5,400 troops were defeated by 12,000 Confederates, in a terrible six-hours' battle. When 1862 opened, the Southerners held nearly half Missouri, but Gen. Curtis and 12,000 Federals drove them into Arkansas, and inflicted a crushing defeat at Pea Ridge. During the war, army after army of Confederate troops invaded Missouri, endeavoring to conquer the State, and so possess also the great regions of Kansas, New Mexico, and Arizona. Bands of guerillas, professing allegiance to the Confederacy or the Union, carried on a horrible warfare, and destroyed vast amounts of property. In 1864 Gen. Price made a foray across the State from the southeast to Jefferson City, Independence and Lexington, and then retired before the concentrating National armies, Gen. Pope and Commodore Foote in 1862 reduced the Confederate forts at New Madrid and Island No. 10, after some hard fighting, capturing three generals, 7,000 men, 158 cannon and eight steamboats. Among other local events of the conflict were the Confederate siege and capture of Lexington, with its garrison of 3,000 men; Zagonyi's picturesque cavalry charge at Springfield; Grant's bloody fight at Belmont; Ewing's defence of Pilot Knob; and the defeat of Johnson's Federal command at Centralia. Missouri contributed 108,777 soldiers to the National Army, and 30,000 to the Confederate army, or 60 per cent. of its men subject to military duty. Of these 27,000 died in the two services. This was the only Slave State voluntarily to abolish human slavery, which was done early in 1865, by a convention elected by 30,000 majority. Lincoln's Proclamation of Emancipation did not apply to this State, and of her own accord she freed her 114,000 negroes, valued at $40,000,000. After the war, Missouri repealed her stringent emergency legislation; declared a general amnesty; and became a liberal Democratic State. She has since grown in wealth, population and power, with phenomenal rapidity, and stands among the foremost commonwealths of the mighty West.

ST. LOUIS STATUES:
HUMBOLDT—COLUMBUS—SHAKESPEARE—BENTON.

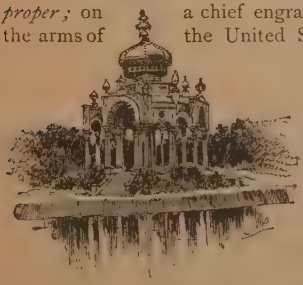
IRON MOUNTAIN.

SIBLEY BRIDGE: MISSOURI RIVER.

PILOT KNOB.

The Name Missouri means BIG MUDDY (*Missui*, or *Missi*, Algonquin for "Big," and *Souri* or *Shozhay*, Dakota for "Muddy"), and was applied by the Indians to the river which still bears it, pouring down in the springtime laden with the yellow mud of thousands of miles of prairie. GRAND OLD MISSOURI is an appellation which Gov. Francis used in his campaign speeches. It used to be called *The Iron-Mountain State*, and also *The Bullion State*, and had, furthermore, a ribald name, now happily heard no more. The people of Pike County were among the most indomitable pioneers of the Far West, crossing the Plains in ark-like wagons with their families. They were called "Pikes."

The Arms of Missouri were adopted in 1822, and consist of a grizzly bear passant gardant *proper;* on a chief engrailed *azure*, a crescent *argent;* on the sinister side *argent*, the arms of the United States; the whole within a band inscribed UNITED WE STAND, DIVIDED WE FALL. The crest is a full-faced grated helmet, supporting a cloud, with a star above, and 23 smaller stars. The supporters are two white or grizzly bears of Missouri rampant gardant *proper*. The motto is SALUS POPULI SUPREMA LEX ESTO, "Let the Welfare of the People be the Supreme Law."

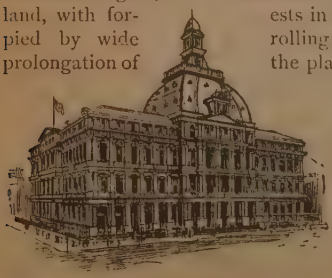


ST. LOUIS: FOREST PARK.

The Governors of Missouri were: *Territorial:* Benj. Howard, 1812–6; Wm. Clark, 1816–20. *State:* Alex. McNair, 1820–4; Frederick Bates, 1824–5; John Miller, 1825–32; Daniel Dunklin, 1832–6; Lilburn W. Boggs, 1836–40; Thos. Reynolds, 1840–4; John C. Edwards, 1844–8; Austin A. King, 1848–53; Sterling Price, 1853–7; Trusten Polk, 1857; Robert M. Stewart, 1857–61; Claiborne F. Jackson, 1861; Hamilton R. Gamble (provisional), 1861–4; Thos. C. Fletcher, 1864–8; Jas. W. McClurg, 1868–71; B. Gratz Brown, 1871–3; Silas Woodson, 1873–5; Charles H. Hardin, 1875–7; John S. Phelps, 1877–81; Thos. T. Crittenden, 1881–5; John S. Marmaduke, 1885–9; David R. Francis, 1889–93.

ST. LOUIS: FOUR COURTS.

Descriptive.—Missouri is one of the most diversified of the Western States, as to soil, products, climate, and surface, and extends through 4½ degrees of latitude. The elevation of the land varies from 287 feet, in the southeast, to 3,000 feet at Cassville. The noble Mississippi River forms its eastern frontier, and the Missouri borders it for a long way on the west. A line drawn from Hannibal to the southwestern corner of Missouri separates the prairie region, on the north and west, from the forest region, on the east and south. North of the Missouri is a region of broken land, with forests in the east and along the great rivers, and the rest occupied by wide rolling prairies, well-watered and productive, and in effect a prolongation of the plains of Illinois and Iowa. Similar high grassy plateaus run west from the Ozark Mountains, and from the Mississippi to the Big Black. South of the Missouri the forests of the east are offset by these open prairies of the west, with large rivers, like the Osage and Gasconade, running northeast into the Missouri. The undulating and fertile lowlands of the southeast, with their swamps and deep woods and large flat hills, are rich and productive, with a semi-tropical climate, adapted for raising cotton and tobacco, wheat and corn. The



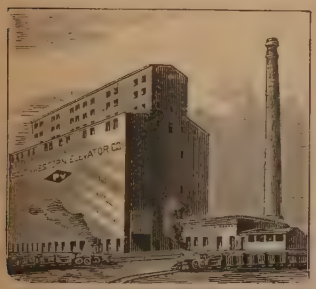
ST. LOUIS: POST-OFFICE.

swamp counties are six in number, with parts of four others; and cover 3,000 square miles. The rapid clearing away of the forests has opened here a productive farming country, only a part of which is liable to inundation. In the extreme southeast, about New Madrid, occurred the great earthquake of 1811–12, lasting for several months, the earth rising and falling in great undulations, hills sinking, lakes opening, and vast fissures and rents in the earth ejecting mud and smoke. On the day of the earthquake that destroyed Caracas, in South America, these phenomena ceased.

ST. LOUIS: COURT-HOUSE.

The Ozark Mountains run from the Missouri River, east of the Osage, southwest into Arkansas and Kansas, changing from isolated hills and knobs to the high and arable table-lands of the West. Another ridge runs southeast from the Ozarks to the Mississippi, and follows the river, in high bluffs, from the Meramec to Ste. Genevieve. This line of highlands includes many bold knobs, rising from 500 to 1,000 feet, like Pilot Knob and Iron Mountain. The delightful Arcadia Valley, near Shepherd's Mountain, has the summer-cottages of many St.-Louis families.

A large part of the State was originally covered with woodlands, oaks and elms, hickories and maples in the north, huge cypresses and sycamores, cottonwoods and gum-trees in the south, with scattered forests of red cedars and pines, pecans and persimmons. Great quantities of hardwood lumber are cut every year; and the saw-mills of Canton and Hannibal manufacture millions of feet of pine lumber from Wisconsin and Minnesota logs. The south counties contain immeasureable forests of yellow pine and live-oak.



KANSAS CITY: SOUTHWESTERN ELEVATOR.
F. H. PEAVEY & CO.'S SYSTEM.

Northern Missouri is watered by the Chariton, Grand, Platte and other streams flowing to the Missouri; and the Cuivre, Salt, Fabius, and other Mississippi tributaries. From the Kansas to the Mississippi the Missouri River runs east 436 miles, a broad, deep and turbid stream, with bottoms of light, deep and incredibly rich soil. The Missouri and Mississippi afford highways for a vast steamboat commerce, and are continually under improvement by United-States Engineers, with snag-boats and working parties. The Osage River is a noble stream, flowing from Kansas to the Missouri River, navigated by several steamboats to Tuscumbia (60 miles) and sometimes as far as Warsaw (170 miles). It has a yearly commerce of $600,000 in railway ties, rafts of oak and walnut logs, and steamboat freights. The Gasconade enters the Missouri below the Osage, and is navigated by three small steamboats, as far up as Arlington, the chief shipments being railway ties and wheat. The Lamine is another navigable affluent of the Missouri. The Meramec and St. Francis reach the Mississippi, and the St.-Francis, Black, White, and other Arkansas rivers have their upper waters in southern Missouri.

There are scores of interesting caverns in Missouri, miles in length, with hidden streams and lakes, and vast halls and corridors, enriched with brilliant stalactites. The regions about Hannibal, Springfield and Rolla abound in these hidden halls, cutting far under the foundations of the hills. In the south there are many mammoth springs, bursting from the ground with great force, and pouring their crystal floods down to the winding

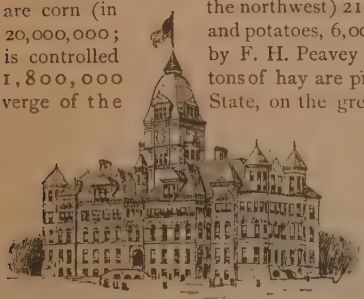
ST. LOUIS: SHAW'S GARDEN.

rivers. Sweet Springs, midway between Kansas City and Jefferson City, is the most fashionable watering-place in Missouri, with several valuable saline and sulphur springs, huge baths of salt water, and a hotel and cottages amid velvety lawns and a park of forest-trees, 500 feet above St. Louis, and near the Black-Water River. Pertle Springs, in the same region, has the large Minnewawa Hotel and many summer-cottages. The Windsor Spring, with its calcic waters; the Sulphur Springs; and the famous Montesano Springs are in the region of the Meramec. El-Dorado Springs, down in the southwest, are a group of chalybeate waters, with large hotels. Excelsior Springs, northeast of Kansas City, are famous for their efficacy in healing rheumatism and dyspepsia and other chronic diseases. The Chouteau, Monagaw, Cheltenham and Elk waters are sulphurous.

ST. JOSEPH: CITY HALL.

The Climate is full of extremes, being devoid of moderating sea-air or sheltering hill-ranges. It is dry, owing to the rapid evaporation; and the sky is usually clear and bright. The least rain falls in April. The Missouri often remains frozen all winter; the Mississippi sometimes closes at St. Louis for many days. Some winters fail to reach zero; others reach —20°. The summer temperature averages 78.5° in the southeast, and 73° in the northwest. The annual temperature of most of the region north of the Missouri is 48°; of the lagoon country in the southeast, 60°; of the rest of the State, 56°. The summers are long and warm, the winters usually short and mild.

Agriculture.—This State ranks third in the value of its farm products. The chief crops are corn (in the northwest) 219,000,000 bushels yearly; oats, 36,000,000; wheat, 20,000,000; and potatoes, 6,000,000. The Southwestern Elevator at Kansas City is controlled by F. H. Peavey & Co., of Minneapolis and elsewhere. More than 1,800,000 tons of hay are produced, largely in the northwest; and at the other verge of the State, on the great St.-Francis bottoms, 20,000 bales of cotton are raised yearly. Missouri holds the seventh rank in tobacco, with a crop of 13,000,000 pounds, mostly from the Missouri-River counties. Rye and barley, sorghum and hemp are also abundantly produced. Red and white clover, timothy, red top, and the rich blue-grass grow abundantly, and since 1885 larger and larger areas have been devoted to grass-culture. Missouri is a capital fruit State, with the apple and pear, plum and cherry mingling with the fig and nectarine, apricots and the rarest grapes, delicious peaches of the Ozarks, the apples of the Platte Purchase, the Gasconade grapes, and the Jasper strawberries. In the production of red and white wines, Missouri stands second only to California.



KANSAS CITY: COURT HOUSE.

Missouri ranks as first among the States in the number of its mules, and second in cattle. The plebeian stock of the early days is being replaced by fine blooded animals, greatly increasing the value of the flocks and herds. The horses and mules number 950,000; and the cattle, 2,200,000. There are 1,300,000 sheep, mostly in the south, with its mild climate and fine grasses. Hogs number 3,200,000. There are lucrative dairies in the north, which also has a large product of eggs.

St. Louis still holds the primacy in the American fur-trade, receiving $2,000,000 worth of peltries

ST. LOUIS; MANUAL TRAINING SCHOOL.

COLUMBIA: UNIVERSITY OF MISSOURI.

yearly. In the remote hills a few elk still linger, with deer, bears, wolves, cougars, and wild cats. Along the streams dwell the mink, the otter, and the beaver. The birds of Missouri are of great value, from wild turkeys and pigeons, grouse and quail, to ducks and wild geese, herons and cranes, and the melodious thrushes and mocking-birds. The rivers abound with catfish, buffalo fish, black bass, perch, pike, suckers and sunfish.

Mining.—The Missouri iron-fields contain inexhaustible supplies of red and brown hematites, red oxides, specular iron, and clay ironstone, excelling any other ores in quality. Iron Mountain is a low, irregular hill, covering 500 acres, capped by a vein of hard specular ore, from six to 30 feet thick, and yielding 68 per cent. of pure iron. Below occur great deposits of porphyry, filled with a network of small veins of ore, which is continually being exposed and freed by the crumbling of the rock. It is not a mountain of iron, as generally supposed. This field was opened in 1845, and now has an enormous output, having already yielded above 5,000,000 tons. It is 80 miles south of St. Louis; and in the same region rises the picturesque Pilot Knob, a huge mound of 600 feet high, containing a bed of bluish-gray iron-ore, from twelve to 30 feet thick, and yielding above 50 per cent. of strong, tough and fibrous iron. Shepherd Mountain has vast areas of uniform magnetic and specular ore, free from sulphur or phosphorus. Scotia Iron Banks and Iron Ridge are great beds of soft red hermatites, containing masses of specular ore. The Missouri Iron Company runs the valuable mines in Crawford and Dent Counties. There are other iron deposits in various localities; and the abundance of smelting coal and fluxes in Missouri gives great advantages to iron-workers. There are nearly a score of blast-furnaces in the State.

ST. LOUIS: HIGH SCHOOL.

Lead is found in great quantities, especially in the magnesian limestone, in the centre, southeast and southwest. The long-drawn caverns of Washington County had millions of pounds adhering to their roofs and sides. Half the product of Missouri comes from Jasper and Newton Counties, where lines of stacks extend for miles, and many furnaces are in active operation. Thousands of tons are shipped from Granby and Joplin, where the metal comes to the very surface of the ground. The product has exceeded 90,000,000 pounds in a single year. Missouri is the foremost State in the production of zinc, yielding 12,500 tons yearly, from the mines in the far southwest, with great furnaces at Joplin and Carondelet, near St. Louis. Copper has been mined for many years, in carbonates and sulphurets, but the vast output of the Michigan region has closed the Missouri mines. There are several nickel-mines in the State.

ST. LOUIS:
ST.-LOUIS UNIVERSITY AND ST.-XAVIER CHURCH.

Bituminous and cannel coals underlie 26,000 square miles of Missouri, being a continuation of the Iowa coal-measures through the north and across the Missouri River, and between the Grand and Osage Rivers. The chief mining region is in St.-Louis County, with seams one to seven feet thick, producing good smelting and engine coals. The Osage coal-pockets are anomalous masses of fine bituminous coal, 20 to 80 feet thick, in the ravines along the Osage. Missouri produces

ST. LOUIS: MERCANTILE LIBRARY.

2,600,000 tons of coal yearly. She has also great quarries of brown, red and buff sandstone; white, red and colored marble; hydraulic lime and cement, slate and limestone, gypsum and grindstones. Fully 10,000,000 pounds of barytes are quarried yearly. The fire and potters' clays and kaolin employ many brickyards and potteries; and the fine sand derived from its saccharoidal limestone has made this the second State in the production of plate-glass. Onyx is found in the Ozark Mountains.

Government.—The governor and six executive officers are elected by the people, for four years. The legislature includes 34 four-year senators and 143 two-year representatives. The Judiciary includes the Supreme Court, with five justices; the St.-Louis and Kansas-City Courts of Appeal; 30 circuit courts; and ten municipal courts. The State Capitol at Jefferson City was built in 1838–40, of Missouri stone, at a cost of $350,000. New wings were added in 1887–88. The great leader in the foundation of Missouri, and one of her first and ablest senators and editors, was Thomas Hart Benton (born in North Carolina in 1782, and died at Washington in 1858), the advocate of favorable land-laws, and the overland traffic routes.

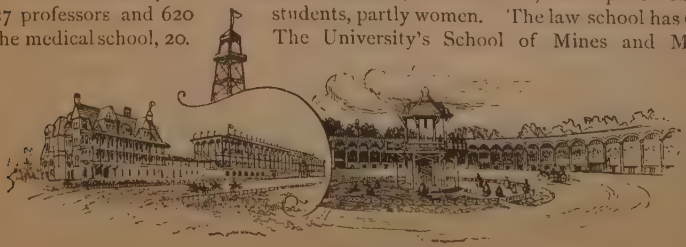
The National Guard of Missouri consists of two regiments, the First Infantry, of St. Louis, the Third Infantry, of Kansas City, 14 unattached infantry companies, a battalion of cadets, two light batteries, and a troop of cavalry. The Penitentiary, at Jefferson City, has over 1,600 inmates, most of whom are kept at work by contractors. The Reform School for Boys is at Boonville; the Industrial School for Girls is at Chillicothe. The latter is on the cottage plan, with 50 in each family. The State Asylums for the insane are at Fulton, St. Joseph, and Nevada, and contain 1,200 patients. The School for the Blind, at St. Louis, accommodates nearly 90. The institution for the Education of the Deaf and Dumb at Fulton has 300 inmates under its instruction.

ST. LOUIS: MUSEUM OF FINE ARTS.

Jefferson Barracks, just below St. Louis, is one of the most important recruiting stations of the United-States army. The great National Cemetery near the Barracks contains the graves of 11,637 soldiers. There are similar cemeteries at Jefferson City (812 graves) and Springfield (1,614).

Education is maintained by school funds of $11,000,000, school-property valued at $9,000,000, and a yearly outlay of $5,000,000. Every district must have free schools for white and colored pupils, with graded and high schools in the cities. The State Normal Schools are at Kirksville, Warrensburg, Cape Girardeau, and Jefferson City (the latter being for colored pupils), and have 1,800 students.

The University of the State of Missouri, at Columbia, was opened in 1840, and has 27 professors and 620 students, partly women. The law school has 60 students, and the medical school, 20. The University's School of Mines and Metallurgy is at Rolla. The University has connected with it the land-grant Agricultural College, with a veterinary laboratory, horticul-

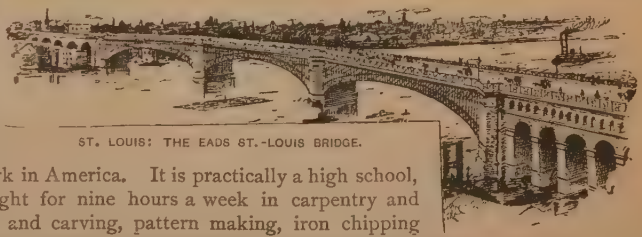


ST. LOUIS: THE FAIR GROUNDS.

tural gardens, and a productive farm. St.-Louis University is an important Jesuit institution, dating from 1829, and with 34 instructors and 228 students, besides 207 in the commercial and preparatory schools. In 1888 the institution moved from its old home, in the heart of the city, to a line of new buildings in early decorated English Gothic architecture, on Grand Avenue. The College of Christian Brothers is at St. Louis; and St. Vincent's College is at Cape Girardeau.

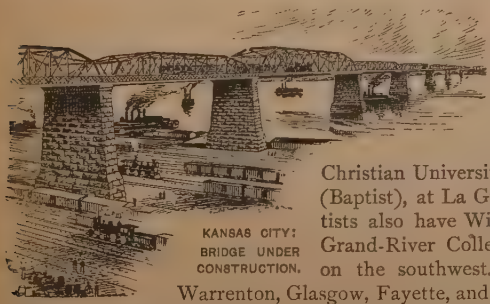
ST. LOUIS: EXPOSITION BUILDING.

Washington University is at St. Louis, the metropolis of the Mississippi Valley. It was incorporated in the year 1853, for a first-class educational institution of the highest rank, modelled after the great Eastern universities, and hoping in time to become the Harvard of the West. It was inaugurated in 1857, the oration being delivered by Edward Everett. The college was organized in 1859, and graduated its first class in 1862. There are 110 students in the college and the Polytechnic School (organized in 1870). The Law School dates from 1867, and has 80 students in a finely organized two years' course. This department has 400 graduates. The St.-Louis School of Fine Arts is a department of Washington University. It was founded in 1879, and has above 300 students in drawing, painting, modelling, wood-carving and the connected arts, with lectures, evening classes, and large collections of paintings and casts. The Henry Shaw School of Botany dates from 1885, and stands in close affiliation with the largely endowed Missouri Botanical Garden and Arboretum. Three other schools have been organized and are now working under the charter of Washington University. Smith Academy was founded in 1853, as a fitting-school for college, and has 320 male students. Mary Institute dates from 1859, and has about 400 girl students, with fine buildings and equipments. The Manual Training School is the most original and unique feature of Washington University, and was the prototype and model of nearly all the others now at work in America. It is practically a high school, whose pupils are taught for nine hours a week in carpentry and joinery, wood-turning and carving, pattern making, iron chipping and filing, forge work, brazing and soldering, and many other branches of bench and machine work in metals, together with free-hand, technical and mechanical drawing. The aim of Prof. C. M. Woodward, the founder and director of the school, is to combine "the cultured mind, the skilful hand."



ST. LOUIS: THE EADS ST.-LOUIS BRIDGE.

Drury College is a Congregational institution, at Springfield, with 165 students and a library of 20,000 volumes. Westminster College (Presbyterian) is at Fulton. The north-eastern part of Missouri contains the Christian University, at Canton, and La-Grange College (Baptist), at La Grange, on the Mississippi. The Baptists also have William-Jewell College, at Liberty, and Grand-River College, at Edinburg; and one at Bolivar, on the southwest. The Methodists have colleges at Warrenton, Glasgow, Fayette, and Morrisville. There are 40 other small colleges, and 50 academies and seminaries. Concordia College, the Lutheran theological seminary at St. Louis, has a handsome new Gothic building; and there are Evangelical



KANSAS CITY: BRIDGE UNDER CONSTRUCTION.

ST. LOUIS:
ST.-LOUIS GLOBE-DEMOCRAT.

Methodist, and Catholic divinity schools, with 700 students. The chief libraries are the Public (60,000 volumes), Mercantile (65,000), Law (15,000), St.-Louis University (25,000), and Academy of Science (10,000), at St. Louis; the State Library (18,000), at Jefferson City; the Kansas-City Public Library (12,000); and the State University (13,000).

The Newspapers of Missouri number 756, or a greater number than Massachusetts or California has. In this regard Missouri is the seventh State. The St.-Louis *Globe-Democrat* is the leading newspaper of the Mississippi Valley, enjoying a circulation unequalled by any other daily paper published west of the Alleghany Mountains. Its principal field is Missouri, Illinois, Kansas, Arkansas, Texas, and Colorado, with an extensive circulation in all the Western and Southwestern States; and even on the Pacific Slope it may be found for sale at all newsdealers. It is par excellence a gigantic news-journal, and pays more money for telegraphic reports and correspondence than any newspaper in the United States, as the statistics of the telegraph companies show. The Missouri *Democrat*, founded in 1852, and *The Globe*, started in 1872, were consolidated under the name of the *Globe-Democrat* in 1875. Since then it has largely increased in circulation and influence throughout the West, Northwest and Southwest. The main proprietors since 1875 have been the late William McKee, and the present president, Daniel M. Houser; both of whose names rank among the preëminently successful newspaper-men of this country. Joseph B. McCullagh, for many years the managing editor, ranks as the peer of any editor of his time. The company erected for its occupancy, in the fall of 1891, a superb eight-story stone building, which is among the finest newspaper structures in the country, in every way adapted to its business, and furnished with the latest machinery in the way of lighting, heating, and elevators. Enormous lightning-speed presses of the latest patterns are used, as also the new type-setting machines.

KANSAS CITY:
KANSAS CITY "TIMES."

The metropolis of western Missouri has its own morning and evening newspaper in the Kansas-City *Times*, whose issues also go throughout Missouri, Kansas, and the Indian Territory. This widely-known journal began its career in 1868, and three years later it came under the management of Dr. Morrison Munford, who still owns more than three fourths of its stock. Under his strong and energetic administration, the Kansas City *Times* has been repeatedly enlarged and newly dressed, and has risen from a local paper of small circulation to a commanding position in the West and Southwest; in fact, one of the notable dailies of the United States, with an immense and profitable circulation and advertising patronage. It advocates the interests of the West, in season and out of season, and with conspicuous editorial ability. The Kansas-City convention of 1888, whose delegates at Washington did so much to secure the opening of Oklahoma for white men, was called by the *Times*, which has always been an earnest advocate of settling the Indian Territory as an American State. The *Times* occupies its own building, built for its own use, at the "Junction" of three main thoroughfares. In its own important locality it is the foremost daily newspaper.

ST. LOUIS: AMERICAN BISCUIT & MFG. CO.

Chief Cities.—St. Louis is admirably situated on the Mississippi not far from the inflowing of the

Missouri and the Illinois, and hence occupies a remarkable strategic position with regard to the great rivers of the continent. It covers 40,000 acres, with a river front of 19 miles, and rises in some localities 200 feet above the Mississippi. The 22 railways converging at St. Louis, and her immense river-navigation, have given her control of the trade of the Mississippi Valley and the Southwest. St. Louis is also one of the foremost cotton-centres, the receipts reaching 600,000 bales a year.

The clearing-house business exceeds $1,000,000,000 yearly; 15,000,000 tons of freight are received and forwarded yearly; 2,000,000 barrels of flour are made yearly in the city mills; 315,000,000 pounds of hog-products are exported; 21,000,000 pounds of wool, and 2,000,000 head of live-stock are received. The tugs can each tow 10,000 tons of freight (or enough to fill 13 freight trains of 40 cars each) from St. Louis to New Orleans (1,241 miles) in seven days, which is about the time of an ordinary freight-train. In 1889 428,000 tons of bulk grain and 78,000 tons of other freight were sent to New Orleans in this way. Each year 940 steamboats leave St. Louis for the Lower Mississippi, 800 for the Upper Mississippi, 175 for the Missouri, 125 for the Illinois, 150 for the Cumberland and Tennessee. There are 2,000 men making 100,000 stoves and ranges yearly. St. Louis has 30 shoe factories, making nearly $7,000,000 worth of goods. In the vicinity of the city are the beautiful Tower-Grove and Forest Parks (276 and 1,370 acres), embellished with statues and fountains. The Missouri Botanical (Shaw's) Garden is rich in flowers, native and exotic.

The St.-Louis Bridge, crossing the Mississippi, was designed by James B. Eads, and built in 1869-73, at a cost of $10,000,000 (including the tunnel). It is one of the noblest triumphs of American engineering skill, and includes four ribbed-steel arches, resting on immense stone piers, the rise of the arches being 60 feet, to allow steamboats to pass underneath. The central span is 520 feet, and the side spans 500 feet each. The upper story has carriage and foot-ways; the lower story, a double-track railway. The steel-work on this vast structure was furnished by the Keystone Bridge Co., of Pittsburgh, which also built the Chicago, Milwaukee & St.-Paul Railroad Bridge near Kansas City. The Merchants' Bridge was built across the Mississippi in 1889–90, at a cost of $6,000,000. It is 2½ miles north of the Eads Bridge and 2,420 feet long.

One of the finest office structures of St. Louis is the Houser Building, on the corner of Broadway and Chestnut Street. It is seven stories high, with walls of stone and brick, floor-beams of steel, and floors and partitions of tiles, thus making an edifice proof against any danger of fire. The interior finish is of Wisconsin red oak, with marble-paved halls, heavy bronze hardware, and abundant light on all sides. Hydraulic elevators give easy access to the offices, with cars of wrought iron work. This handsome structure was erected in 1889–90 by Daniel M. Houser, senior proprietor of the St. Louis *Globe-Democrat.*

ST. LOUIS: THE HOUSER BUILDING.

Kansas City at first was the muddy little river-landing for Westport, and grovelled under its clay bluffs, frequented mainly by border raiders. In 1865 it had only about 3,500 inhabitants, but the advent of the Missouri Pacific Railway and the grand western march of the American people, tenfolded its population during the next five years, and it now claims to be the gateway of Kansas, with its level lands crowded with tracks and cars and the largest meat-packing houses in the world. The municipality of Kansas City, Kansas, the largest place in the Sunflower State, is separated from Kansas City, Missouri, only by an unseen political boundary line, passing down the middle of one of the streets. In 1890, these contiguous twin-cities had a united population of over 170,000 persons, making up the largest community between St. Louis and San Francisco, and full of hopeful and abounding life.

The foremost home for travellers in Kansas City is the famous Midland Hotel, opened in 1889, and one of the best hotels in this country. It covers an entire block, in the most central part of the city, near the post-office, stores and theatres. The walls are of pressed brick and terra-cotta; the floors and partitions of hollow terra-cotta blocks; the interior finish, of English oak and white marble; and the main stairway, of marble and iron. The building is fire-proof, heated by steam, lighted by hundreds of electric lights, ventilated by exhaust ventilators, and traversed by four swift hydraulic elevators, and liberally enriched with cathedral glass, Honduras mahogany, Mexican onyx, Reed & Barton silverware, Wilton carpets, French-plate glass, Egyptian red marbles, oaken wainscoting and other artistic beauties. On the ground floor is a great exchange, or central court, running from street to street, and giving entrance to a variety of convenient stores. Among the notable departments are the billiard-room, 100 by 45 feet, with Persian rugs on its marble floor, Lincrusta-Walton on the walls, and oaken beams overhead; the bar-room, whose crystal and silver are flashed back by huge French-plate mirrors, over the long bar of red Egyptian marble; the Elizabethan writing-room, with high English oak wainscots and huge fire-place; the baths, Turkish, Russian, electric, sulphur, or any other kind, with a marble-cased swimming-pool 30 by 60 feet in area; the bridal suite, hung with primrose and blue China silk, and made brilliant by golden cobwebs; and the grand dining-room, on the seventh story, and overlooking the city and the Missouri River. The Midland is owned by the Midland Hotel Company. It is in keeping with the many grand public and private structures of Kansas City, and is admirably conducted.

KANSAS CITY: MIDLAND HOTEL.

ST. LOUIS: EQUITABLE BUILDING. GENERAL OFFICES MISSOURI PACIFIC RAILROAD.

St. Joseph, on the Missouri, in the northwestern part of the State, has stock-yards covering 440 acres, a jobbing trade of $150,000,000 a year, and large factories. Hannibal is an important Mississippi-River port and railway-centre, with large shipping and manufacturing interests. Sedalia is one of the large central cities, a nest of factories and convergence of railways, surrounded by rich farming lands. Springfield, far to the south, is like Sedalia. Jefferson City has an agreeable situation on the Missouri, near the centre of the State. Among the other Missouri cities are Bonne Terre, among the southeastern lead-mines; Boonville, surrounded by vineyards and mines, on the Missouri; Carthage, the metropolis of the southwest; Chillicothe, the trade-centre of the Grand-River country; Fulton, the chief town of one of the rich central stock-raising counties; Joplin, a busy mining town in the Ozarks; Moberly, with great railroad shops; and St. Charles, with coal-mines and car-works.

KANSAS CITY: NEW ENGLAND MUTUAL LIFE-INSURANCE CO.

Finances.—The bonded debt has dropped from $17,000,000 in 1880 to less than $9,000,000 in 1890, showing a highly favorable condition of financial management in the councils of the State.

The National Bank of Commerce in St. Louis was organized in 1857 as a State bank, and reorganized in 1889 as a National Bank. During the 33 years of its existence as a State Bank, it paid an average of 11 per cent. cash dividends to its stockholders; and in the reorganization paid them also $400 for each $100 of capital paid in.

This capital is now $3,000,000, with undivided profits and surplus amounting to $500,000. The loans and discounts exceed $8,000,000, and the deposits exceed $10,000,000. The National Bank of Commerce has the largest financial business in the Southwest, and its operations cover many of the fast-growing States in that rich and promising region. There is but one bank west of New York (the First National, of Chicago), which carries so extensive a business, or has such a large line of loans and discounts. W. H. Thompson, the President, and J. C. Van Blarcom, the Cashier, are recognized as among the ablest and most conservative financiers of the West, and the institution which they have created ranks among the powerful developing forces of the State of Missouri and the neighboring commonwealths.

ST. LOUIS: NATIONAL BANK OF COMMERCE.

Kansas City is the financial capital of a large region, and its foremost monetary institution is the National Bank of Commerce, which, with the exception of the bank of the same name in St. Louis, is the largest financial institution in the State of Missouri. When Kansas City was a little river-town of 5,000 people, in 1865, the Kansas-City Savings-Association came into existence, under careful but enterprising control as a commercial bank (and not specially for savings). Its capital gradually rose to $50,000, and in 1882 was increased to $200,000, when the name also underwent a change, and the Bank of Commerce came into being. For the next five years this institution paid its stockholders 6 per cent. semi-annual dividends, and then gave them $3,000 for every $1,000 of original investment. In 1887 this prosperous corporation was succeeded by the National Bank of Commerce, with $2,000,000 capital, on which it easily earns its 10 per cent. yearly dividends, besides accumulating a surplus. The President, W. S. Woods, and the Cashier, C. J. White, occupied the same positions in the Kansas-City Savings-Association and the succeeding banks. The deposits in the National Bank of Commerce average $6,000,000. It has one of the largest clientages of country-banks in the Union, and thus enjoys unusual facilities for collections. The bank occupies a handsome building, of attractive and appropriate architecture.

KANSAS CITY: NATIONAL BANK OF COMMERCE.

One of the foremost insurance corporations in the West is the American Central Insurance Company, which has grown to its commanding proportions under the able executive administration of George T. Cram, to whom its marked success may be fairly credited. It was founded at St. Louis, in 1853, and since that date has paid more than $6,000,000 in losses. The cash capital is $600,000, with a net surplus of nearly $400,000. The stock is largely held by leading business men of St. Louis, and the assets of $1,500,000 are in the best of United-States and Missouri stocks and bonds and real estate. The system of agencies connected with the American Central covers nearly all the States and Territories, and is managed with only that enterprise which goes with conservatism. At the great fire in Chicago, this company lost over $300,000, and although this sum exceeded its total assets, every cent was paid in full. The American Central building is one of the architectural ornaments of St. Louis, and covers one of the most valuable sites.

ST. LOUIS: AMERICAN CENTRAL INSURANCE CO.

Various Eastern companies have built up large constituencies in Missouri, whose cities are adorned with their imposing

and magnificent edifices. Among these are the buildings owned and in part occupied by the New-York Life-Insurance Company, at Kansas City; the Equitable Life-Assurance Society, of New York, at St. Louis; and the New-England Mutual Life-Insurance Company, of Boston, at Kansas City.

KANSAS CITY: NEW-YORK LIFE INSURANCE CO.

Railways.—In 1849 there was not a mile of track west of the Mississippi River. Now there are over 60,000 miles in that identical region. The Pacific Railroad Company was incorporated in 1849, and began construction at St. Louis, in 1852, and in the same year, the first locomotive (the "Pacific") west of the Mississippi was placed on its rails. The line reached Kirkwood in 1853, Washington in 1855, Jefferson City in 1856, Tipton in 1858, Sedalia in 1861, and Kansas City in 1865. In 1876 the company was reorganized under the name of the Missouri Pacific Railway; and in 1880 Jay Gould and his associates assumed control. Since that time the company has entered upon a magnificent and far-reaching system of southern extension, covering large parts of Missouri and Kansas, reaching the chief cities of Colorado, the wheat-fields of Nebraska, the sugar-plantations of Louisiana, the cotton-fields of Texas, and the choicest parts of the Indian Territory. By securing control of the St.-Louis, Iron-Mountain & Southern Railway, the Missouri Pacific commands nearly all the traffic of Arkansas, and has the best of connections for New Mexico, Arizona and southern California, and for Mexico. The lines owned or leased by the Missouri Pacific Railway Company, are run with scientific precision and modern comfort.

Manufactures.—St. Louis is the fourth manufacturing city in America. Missouri's 900 flour-mills produce over 2,000,000 barrels of flour a year. The Dozier establishment, at St. Louis (now connected with the American Biscuit and Manufacturing Co.) is the largest cracker factory in the world, and can make 1,400 barrels of flour into crackers daily. The American Biscuit Co. also controls the large works at Kansas City, founded by J. L. Loose.

KANSAS CITY: AMERICAN BISCUIT AND MANUFACTURING CO.

One of the most notable meat-packing houses in the world is that of the Armour Packing Company, whose works cover 14 acres in Kansas City, and furnish employment for 2,300 men, with a yearly pay-roll exceeding $1,100,000. Here stand the great buildings where 150,000 tons of meat may be kept in cold storage, chilled by the product of a dozen ice-machines, and an equal amount may be prepared for immediate use. The daily capacity of these works is 8,000 hogs, 1,000 cattle and 500 sheep. These great herds are speedily and neatly converted into dressed meats, hams and bacon, lard and oils, and a great variety of delicate and enriching canned goods, among them the world-renowned "Luncheon Beef." The Armour Packing Company was founded in 1870, and there is now no region that has not heard its name, in connection with the best of provisions, prepared here in the very centre of the great western cattle-raising industry.

KANSAS CITY: ARMOUR PACKING COMPANY.

The recognized leaders in their particular line in the United States are the Bemis Bro. Bag Company, who commenced business in 1858, and moved to their present quarters, at Fourth and Poplar Streets, a few years since. This company has branches in Boston, Omaha and Minneapolis, and manufactures all descriptions of bags, which find their final destinations in many portions of the United States, as well as distant parts of the world. In 1885 the company was incorporated, with its present style. It has a paid-up capital of $750,000, and is practically a close corporation, with increasing business as the years go by. J. M. Bemis is president of the company; and Stephen A. Bemis is the secretary and treasurer.

ST. LOUIS: BEMIS BRO. BAG COMPANY.

The beers of St. Louis have an international reputation, and indeed are highly prized across the water. Much of this reputation is due to two men, Eberhard Anheuser and Adolphus Busch, of the Anheuser-Busch Brewing Association. The business of this concern is enormous. Their buildings and yards cover an area of 80 acres. These are not common buildings, but immense and architecturally impressive structures that amaze every visitor. They have been erected with exceptional taste and rare solidity. More than 2,000 people are constantly employed. The premises are connected by railway tracks with the great railway systems of the country. The company owns and controls its own refrigerator cars, which number 800, a railway plant in itself, and the annual shipments exceed 14,000 car-loads. The beer is shipped both bottled and in bulk. The refrigerator-cars carry a sufficient quantity of ice to preserve the proper temperature of the beer in bulk, and at various points throughout the country the company has its own storage ice-houses controlled by resident agents. The bottling department is the largest in the world and sells 40,000,000 bottles yearly. The brewing capacity of the works is 1,000,000 barrels or 4,000,000 kegs annually. The company, in addition to its immense trade at home, has a large export trade with Mexico, the West Indies, Central America, Brazil, and the Sandwich Islands, and large supplies go even to Australia, China, Turkey and Egypt. This is not merely "America's largest and most popular brewery," but is also the greatest in the world.

ST. LOUIS: ANHEUSER-BUSCH BREWERY.

The American Wine Company of St. Louis, makers of the delicious "Cook's Imperial Champagne," has demonstrated that this country can compete successfully with the Old World in the production of pure, sparkling wines, and that we have already learned the art of the proper cultivation of the grape for wine-making purposes. The wines of ancient Greece were praised by Anacreon, and so has George Augustus Sala made known the glorious qualities of American wines. One of the pre-ëminent leaders in this industry was Isaac Cook, who, in 1859, undertook to produce wines equal to those made anywhere in the world. His success has been recognized by awards at all of the great international expositions of the last quarter of a century; not only at the Centennial Exposition in the United

ST. LOUIS: AMERICAN WINE CO.

ST. LOUIS: ODD-FELLOWS' HALL.

States, but also at the expositions in the wine-producing countries of Europe. Nicholas Longworth of Cincinnati was probably the first successful producer of sparkling Catawba, when he brought out the "Golden Wedding." Among his contemporaries was the Missouri Wine Company, mainly owned by Gerard B. Allen and Wm. Glasgow of St. Louis. After Mr. Cook had made a success of his business, he purchased the plant of the Missouri Wine Company, which is now the main vaults and headquarters of the American Company, of which his son, Douglas G. Cook, is the active president. No kindred house has attained the same success as this American Wine Company, whose two brands, "Cook's Imperial" and "Cook's Imperial Extra Dry," are to be found on the lists of every first-class hotel and in the hands of every first-class dealer throughout America. Besides the vaults in St. Louis, the company has large plants, consisting of press houses, wine cellars, etc., at Sandusky, Ohio, the grapes themselves being grown in Ohio. These wines are strictly pure Catawba, produced by a natural process, the result of which makes them of absolute purity.

St. Louis was always a "tobacco town" of more or less importance, but for the past several years it has been, and is now, the greatest in the world, and Liggett & Myers Tobacco Company of that city are the largest manufacturers of tobacco on earth. In 1878 St. Louis produced about 6,000,000 pounds of tobacco, of which this company made less than one third, while in 1890 52,452,852 pounds were produced, of which Liggett & Myers Tobacco Company sold 27,418,266 pounds, all plug chewing-tobacco. Liggett & Myers Tobacco Company's output for 1890 was the greatest ever made in one year in the history of tobacco by any manufacturer, and exceeded in number of pounds the combined sales of plug tobacco for that year of the two next largest factories in the United States. This company during 1890 employed an average of about 1,800 persons, and its pay-roll for that year amounted to almost $1,000,000. For manufacturing purposes the company occupies two immense seven-story brick buildings, also a brick building six stories in height, used for a leaf-stemmery, and a warehouse covering half a block of ground. It also owns and conducts the St.-Louis Box Company, the most completely equipped tobacco-box factory in the world. Liggett & Myers Tobacco Company is the outgrowth of and represents the first tobacco-manufacturing concern established west of the Mississippi. Of its several brands the "Star" is the most popular with consumers, and its great success is due to its being at all times made of the best leaf and the purest and most wholesome flavoring materials, and by an improved and superior manufacturing process devised by the company.

ST. LOUIS: LIGGETT & MYERS TOBACCO CO.

Among its endowments of preëminence in Christendom, St. Louis holds its Meyer Brothers Drug Company, as the largest drug establishment in the world. Christian E. G. Meyer, the President of this corporation, and John F. W. Meyer, his brother, bought out Wall & Meyer, of Fort Wayne (Ind.), in 1852, and founded the house of Meyer & Brother, which established a St.-Louis branch in 1865. The outgrowth of this beginning is the most extensive wholesale drug business in the United States, with the largest capital ($1,750,000), and the largest and best-equipped offices and build-

ST. LOUIS; LIGGETT & MYERS TOBACCO COMPANY.

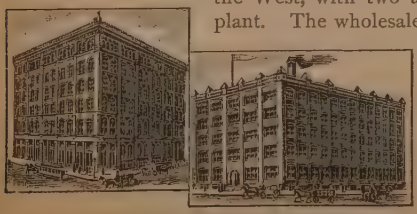
ST. LOUIS : MEYER BROTHERS DRUG COMPANY.

ings anywhere to be found devoted to this trade. Their branches are at Kansas City (Mo.), Dallas (Tex.), and Fort Wayne (Ind.), with a house at New York, for buying, importing and exporting. There are 650 employés. The St.-Louis headquarters is a handsome five-story building, of brick and cut stone, with 170,000 square feet of floor-space, crowded with herbs, roots, leaves, seeds, flowers, bark, oils and liquors, crude chemicals and minerals, and all manner of medicinal substances, for the healing of the nations. The house has a large export-trade to Mexico and the West Indies, and Central and South America. Meyer Brothers Drug Company was incorporated in 1889. The business is mainly jobbing, although they manufacture perfumery and toilet articles, and chemical and pharmaceutical preparations.

The United States has half a dozen or more enormous dry-goods emporiums of the first class, like those of John Wanamaker, of Philadelphia; Marshall Field & Company, of Chicago; and Jordan, Marsh & Company, of Boston; and closely following these comes Bullene, Moore, Emery & Company, of Kansas City. The last-named house, founded in 1867, and with its buyers in Paris, London, Vienna, and other great cities, acknowledges but one rival in the whole Western country, and holds an easy supremacy in all the vast empire from the Mississippi River to the Pacific Ocean. The house in 1889 90 erected for its own use one of the finest retail stores in the Union, occupying seven airy stories, finished in hardwood, with 200,000 square feet of floor-space, lighted on three sides, and with hundreds of electric lights after sunset. The building has 408 windows, 485 columns, and eight elevators. There are three miles of brass pneumatic tubes, leading from 35 stations to a central cashier's desk, to which they whisk brass cups containing money to be changed. The stock reaches $1,000,000, and includes table and kitchen ware, bedding and underwear, bric-a-brac and notions, lamps and clocks, pictures and ceramics, millinery and dress-goods, art-work and embroideries, gloves and shoes, furs and sealskins, carpets and curtains, and myriads of other articles.

KANSAS CITY : BULLENE, MOORE, EMERY & CO.

The business of supplying shoes for several million people in the South and West and Southwest has caused the establishment of many large shoe manufactories and selling-houses in St. Louis. Chief among these stands the Hamilton-Brown Shoe Company, whose St.-Louis "own make" glazed Dongola shoes for ladies and calf shoes for men are handled by over 5,000 retailers, covering a vast area of American territory. J. M. Hamilton and A. D. Brown in 1871 founded this business, which was incorporated in 1884, and now has a capital of $750,000, and employs 900 persons. In 1883 the house began the manufacture of fine shoes for ladies and children, and now it has one of the best and largest factories in the West, with two acres of floor-space, and a large electric-light plant. The wholesale establishment occupies one of the finest mercantile buildings of St. Louis, and is one of the best buildings devoted to the trade anywhere. The chief aim of the Hamilton-Brown Company has been to secure the highest quality of shoes. The house now sells upward of $3,500,000 worth of goods every year, and ranks equal in business to any firm of its line in the whole country.



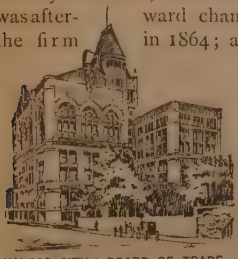
ST. LOUIS : HAMILTON-BROWN SHOE COMPANY.

ST. LOUIS: SHULTZ BELTING COMPANY.

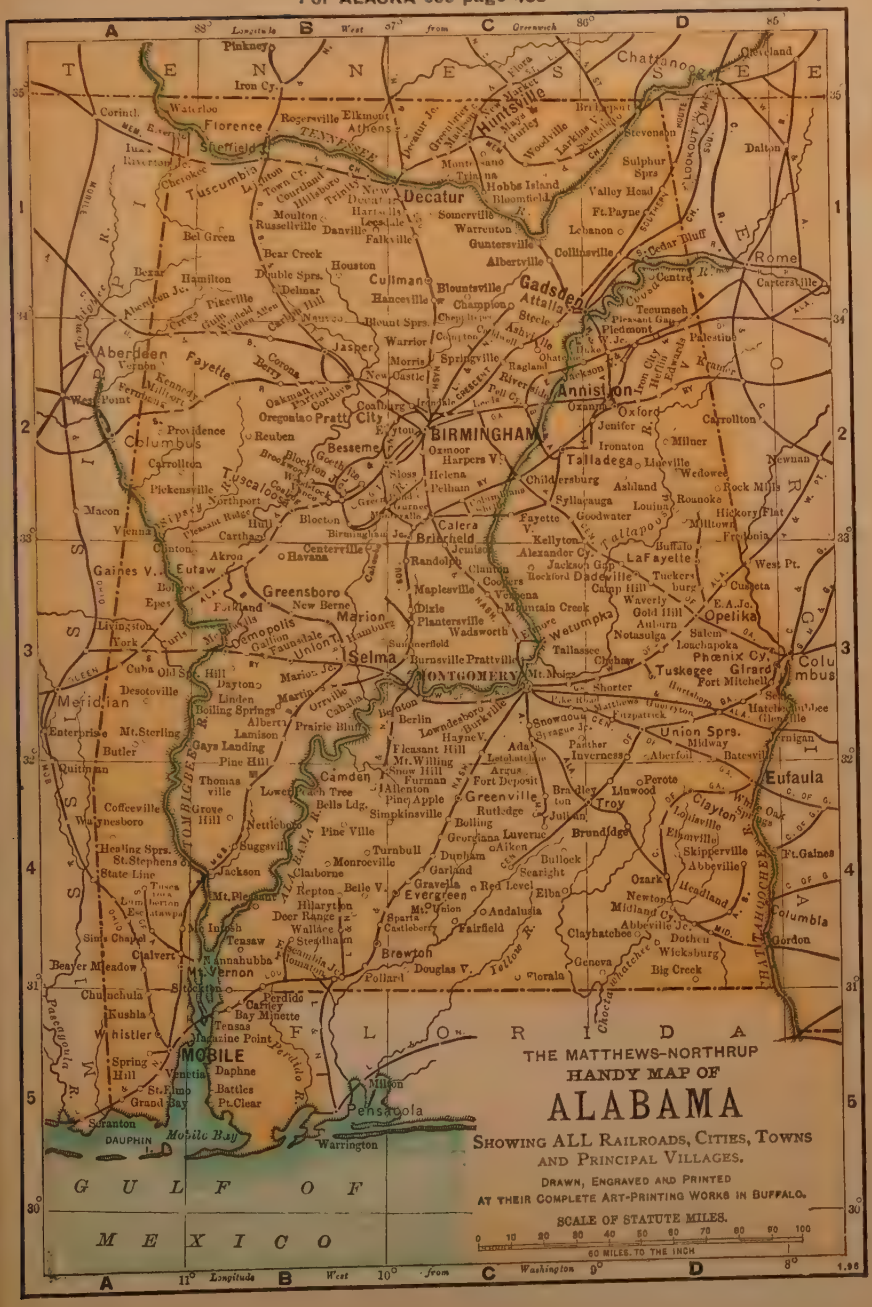
The important problem of the transmission of power has received one satisfactory solution in the world-famous Shultz leather-belting, whose manufacture was started at St. Louis, in 1877, by J. A. J. Shultz. The peculiarity of this article is that the leather is tanned on the surface only, leaving the interior fibre raw-hide, which is softened and made pliable by a patent process. This kid-like softness causes it to adhere to the pulleys, and combines with its great strength and pliability to make a wonderful driving power, with no lost motion. It is of a selected stock, carefully put together and thoroughly stretched, so that it can endure hard service and great strain, and outwear ordinary belting. These belts are especially adapted for electric-light machinery, and one of them, in the East-River Company's plant, at New York, is 123 feet long and 58 inches wide, transmitting 1,000 horse-power. The works employ 100 men. The company has a branch store at Boston. Among other ingenious Shultz products are the leather-woven link-belts, the links made entirely of leather, of uniform size and concave shape, and held together by raw-hide rods, which are remarkably tough and flexible, and of light weight, and at the same time secure the links as safely as iron or steel rods. These belts are made nowhere else in the world. The Shultz Belting Company of St. Louis are the sole manufacturers under the Shultz patents.

ST. LOUIS: MERMOD & JACCARD JEWELRY COMPANY.

When we recall the ancient and wealthy civilizations of London, Paris and Vienna, and even the comparative age of New York and Boston, it is amazing to learn that, with a single exception, the largest jewelry storeroom in the world, devoted to the sale of precious stones, jewelry, silverware, bric-a-brac and art goods is found on the border of the mighty Mississippi, in the great city of St. Louis. Yet this is the rank occupied by the Mermod & Jaccard Jewelry Company, of St. Louis, whose great five-story building covers broad areas on Broadway and Locust Streets, employing 160 persons, and exhibiting all classes of goods usually kept in an establishment of this kind. The stock really forms a grand exhibition; comprising a great variety of watches, diamonds, pearls, rubies, and other gems, gold jewelry, silver, silver-plated ware, clocks, bronzes, pottery, and other precious and beautiful articles. Incidental are several departments, stationery, watch-making and repairing, special jewelry to order, engraving, etc. A. S. Mermod came to St. Louis in 1845, and D. C. Jaccard in 1848, when they at once entered into the jewelry business; later associating themselves as D. C. Jaccard & Company. The style was afterward changed to Mermod, Jaccard & Company, C. F. Mathey entering the firm in 1864; and Goodman King becoming a partner in 1868. In 1883 the business became a corporation, under the title of the Mermod & Jaccard Jewelry Company, which now has a paid-up capital of $500,000, and a large accumulated surplus. In 1888 the new building on Broadway was occupied. The house controls several special manufactures, and imports direct almost the whole of its foreign goods. Not only are its customers found in the West and South, but throughout the East and North and Canada and Mexico, and foreigners make selections from the stock, which has been gathered from many lands.

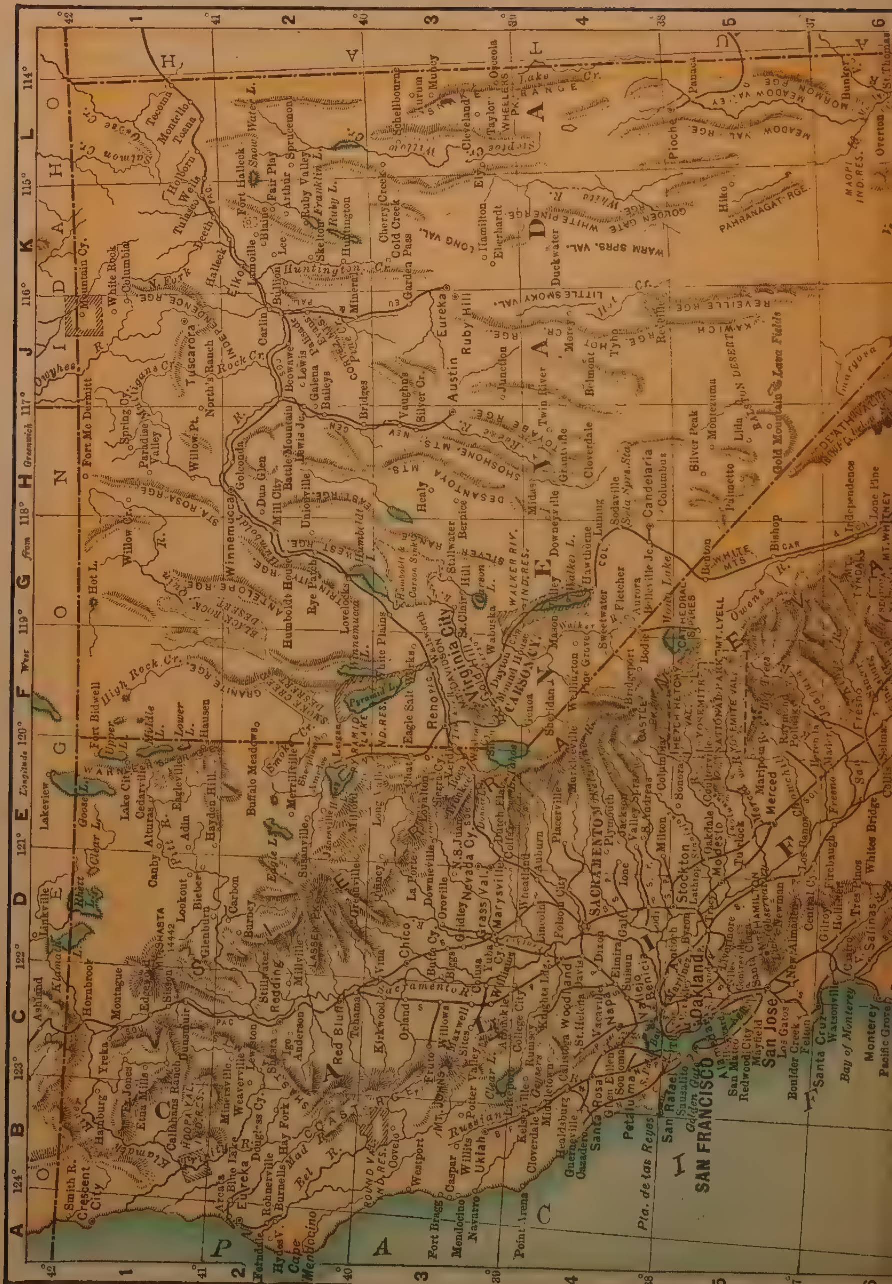


KANSAS CITY: BOARD OF TRADE.


THE MATTHEWS-NORTHRUP
HANDY MAP OF
ALABAMA
SHOWING ALL RAILROADS, CITIES, TOWNS AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES.
0 10 20 30 40 50 60 70 80 90 100
60 MILES TO THE INCH
TENNESSEE
GEORGIA
MISSISSIPPI
FLORIDA
GULF OF MEXICO
Mobile Bay
Pensacola
Warrington
Milton
MOBILE
Decatur
Huntsville
Gadsden
Anniston
BIRMINGHAM
Tuscaloosa
Selma
MONTGOMERY
Opelika
Phœnix Cy.
Tuskegee
Columbus
Eufaula
Troy
Dothan
Rome
Chattanooga
Cleveland
Florence
Sheffield
Tuscumbia
Aberdeen
Columbus
Greensboro
Marion
Meridian
Talladega
Oxford
Carrollton
Pratt City
Besseme
Calera
Brierfield
Randolph
Mapleville
Dixie
Plantersville
Wadsworth
Burnsville
Prattville
Wetumpka
Tallassee
Clayton
Union Sprs.
Midway
Aberfoil
Batesville
Ft. Gaines
Abbeville
Ozark
Newton
Midland City
Abbeville Jct.
Clayhatchee
Dothan
Wiggins
Big Creek
Geneva
Florala
Elba
Brewton
Douglas V.
Pollard
Stockton
Chunchula
Kushla
Whistler
Spring Hill
Grand Bay
Scranton
DAUPHIN
Mt. Vernon
Chatom
Jackson
Mt. Pleasant
Tensaw
Clairvert
Beaver Meadow
Sim Chapel
Bay Minette
Tensas
Magazine Point
Perdido
Carney
Daphne
Battles
Pt. Clear
St. Elmo
Venetia
Bellsmith
Stevenson
Sulphur Sprs
Valley Head
Ft. Payne
Lebanon
Collinsville
Centre
Cedar Bluff
Piedmont
Tecumseh
Palestine
Ashville
Ohatchee
Ragland
Jenifer
Ironaton
Milner
Lineville
Wedowee
Rock Mills
Hickory Flat
Muldon
Fruithurst
Ashland
Childersburg
Syllapauga
Lousiana
Roanoke
Goodwater
Kellyton
Alexander Cy.
Jackson Gap
Rockford
Dadeville
Buffalo
LaFayette
Tuckerburg
Cusseta
Waverly
Gold Hill
Auburn
Notasulga
Salem
Lonchapoka
Fort Mitchell
Shorter
Tallassee
Chehaw
Mt. Meigs
Pike Road
Matthews
Chapman
Fitzpatrick
Snowdoun
Sprague Jct.
Panther
Inverness
Perote
Linwood
Brundidge
Elamville
Skipperville
Ozark
Midland City
Abbeville Jct.
Clayhatchee
Dothan
Wicksburg
Big Creek
Geneva
Florala
Elba
Brewton
Douglas V.
Pollard
Stockton
Chunchula
Kushla
Whistler
Spring Hill
Grand Bay
Scranton
DAUPHIN
Mt. Vernon
Chatom
Jackson
Mt. Pleasant
Tensaw
Clairvert
Beaver Meadow
Sim Chapel
Bay Minette
Tensas
Magazine Point
Perdido
Carney
Daphne
Battles
Pt. Clear
St. Elmo
Venetia
Bellsmith
Stevenson
Sulphur Sprs
Valley Head
Ft. Payne
Lebanon
Collinsville
Centre
Cedar Bluff
Piedmont
Tecumseh
Palestine
Ashville
Ohatchee
Ragland
Jenifer
Ironaton
Milner
Lineville
Wedowee
Rock Mills
Hickory Flat
Muldon
Fruithurst
Ashland
Childersburg
Syllapauga
Lousiana
Roanoke
Goodwater
Kellyton
Alexander Cy.
Jackson Gap
Rockford
Dadeville
Buffalo
LaFayette
Tuckerburg
Cusseta
Waverly
Gold Hill
Auburn
Notasulga
Salem
Lonchapoka
Fort Mitchell
Shorter
Tallassee
Chehaw
Mt. Meigs
Pike Road
Matthews
Chapman
Fitzpatrick
Snowdoun
Sprague Jct.
Panther
Inverness
Perote
Linwood
Brundidge
Elamville
Skipperville
Ozark
Newton
Midland City
Abbeville Jct.
Clayhatchee
Dothan
Wicksburg
Big Creek
Geneva
Florala
Elba
Brewton
Douglas V.
Pollard
Stockton
Chunchula
Kushla
Whistler
Spring Hill
Grand Bay
Scranton
DAUPHIN
Mt. Vernon
Chatom
Jackson
Mt. Pleasant
Tensaw
Clairvert
Beaver Meadow
Sim Chapel
Bay Minette
Tensas
Magazine Point
Perdido
Carney
Daphne
Battles
Pt. Clear
St. Elmo
Venetia
Bellsmith
Stevenson
Sulphur Sprs
Valley Head
Ft. Payne
Lebanon
Collinsville
Centre
Cedar Bluff
Piedmont
Tecumseh
Palestine
Ashville
Ohatchee
Ragland
Jenifer
Ironaton
Milner
Lineville
Wedowee
Rock Mills
Hickory Flat
Muldon
Fruithurst
Ashland
Childersburg
Syllapauga
Lousiana
Roanoke
Goodwater
Kellyton
Alexander Cy.
Jackson Gap
Rockford
Dadeville
Buffalo
LaFayette
Tuckerburg
Cusseta
Waverly
Gold Hill
Auburn
Notasulga
Salem
Lonchapoka
Fort Mitchell
Shorter
Tallassee
Chehaw
Mt. Meigs
Pike Road
Matthews
Chapman
Fitzpatrick
Snowdoun
Sprague Jct.
Panther
Inverness
Perote
Linwood
Brundidge
Elamville
Skipperville
Ozark
Newton
Midland City
Abbeville Jct.
Clayhatchee
Dothan
Wicksburg
Big Creek
Geneva
Florala
Elba
Brewton
Douglas V.
Pollard
Stockton
Chunchula
Kushla
Whistler
Spring Hill
Grand Bay
Scranton
DAUPHIN
Mt. Vernon
Chatom
Jackson
Mt. Pleasant
Tensaw
Clairvert
Beaver Meadow
Sim Chapel
Bay Minette
Tensas
Magazine Point
Perdido
Carney
Daphne
Battles
Pt. Clear
St. Elmo
Venetia
Bellsmith

 For ALASKA see page 465

THE MATTHEWS-NORTHRUP
HANDY MAP OF
ARKANSAS
SHOWING ALL RAILROADS, CITIES, TOWNS
AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED
AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES.
LITTLE ROCK
Hot Springs
Pine Bluff
Fort Smith
Texarkana
Helena
MEMPHIS
Eureka Springs
Fayetteville
Camden

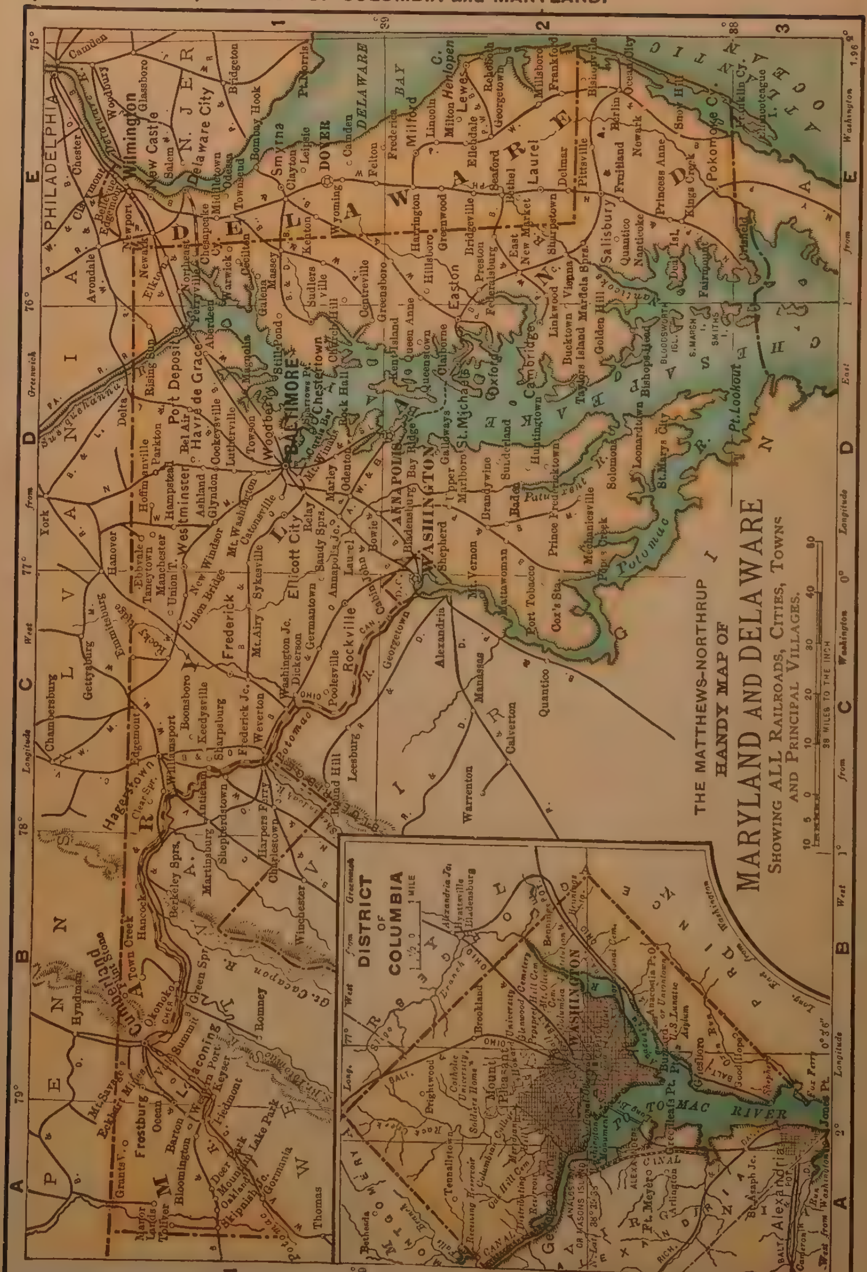


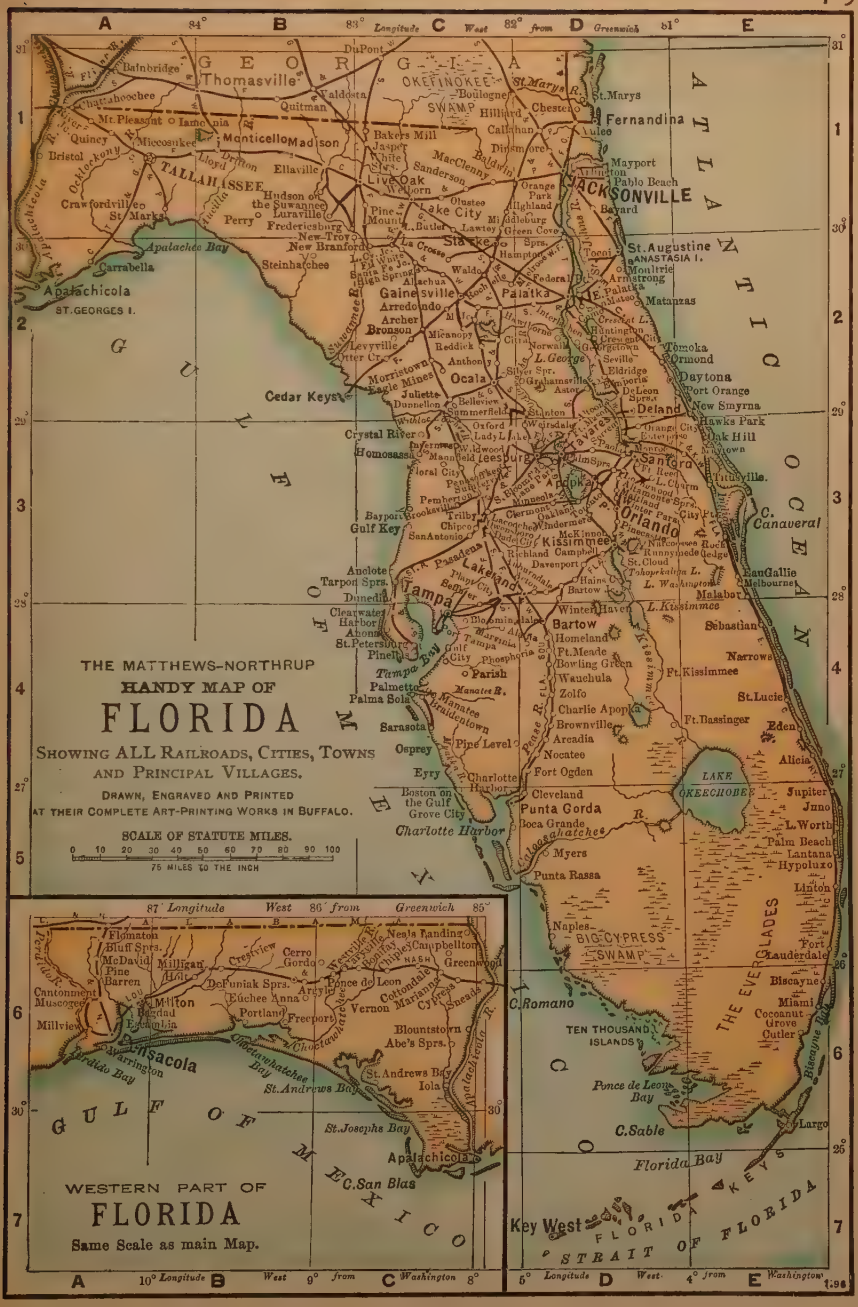
SAN FRANCISCO
SACRAMENTO
CARSON CY.
Virginia City
Oakland
San Jose
Stockton
Reno
Eureka
Austin
Winnemucca
Elko
Carlin
Pioche
Eureka
Arcata
Red Bluff
Chico
Marysville
Nevada Cy.
Placerville
Merced
Fresno
Monterey
Santa Cruz
Bay of Monterey
Pta. de las Reyes
Point Arenas
Cape Mendocino
Crescent City
Yreka
Lakeview
Goose L.
Pyramid L.
Walker L.
Mono Lake
Owens R.
Sacramento R.
Humboldt R.
Mt. Shasta 14442
Lassen Pk.
Yosemite
Mt. Whitney
Longitude 120° West from Greenwich

THE MATTHEWS-NORTHRUP
HANDY MAP OF
CALIFORNIA
AND
NEVADA
SHOWING ALL RAILROADS, CITIES, TOWNS
AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED
AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES.
90 MILES TO THE INCH
GULF OF CALIFORNIA
LOWER CALIFORNIA
MEXICO
PACIFIC OCEAN
Los Angeles
San Diego
ALASKA
ALEUTIAN ISLANDS
EASTERN SIBERIA
BERING SEA
ARCTIC OCEAN
Same Scale as Main Map

THE MATTHEWS-NORTHRUP
HANDY MAP OF
COLORADO
SHOWING ALL RAILROADS,
CITIES, TOWNS AND PRINCIPAL VILLAGES.
SCALE OF STATUTE MILES.

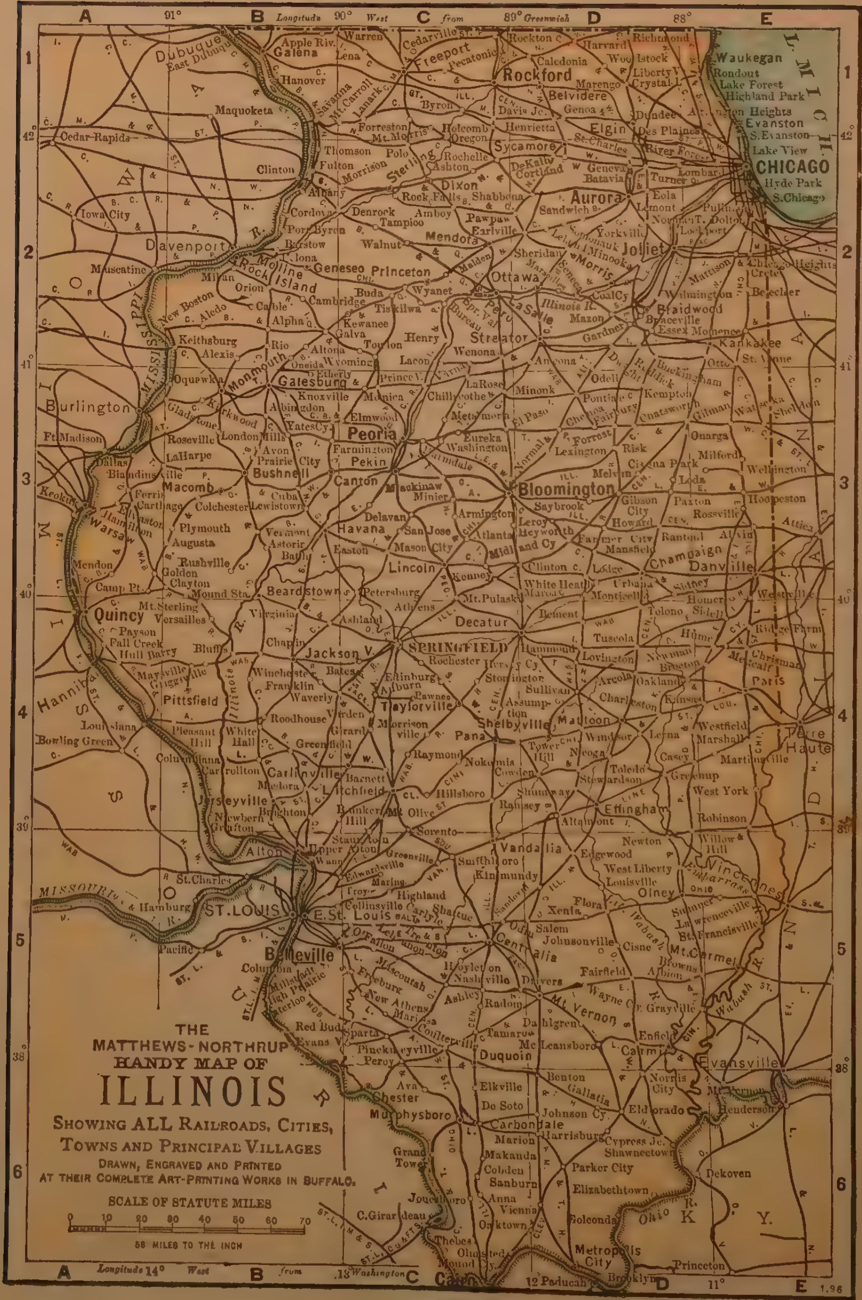
THE MATTHEWS-NORTHRUP
HANDY MAP OF
CONNECTICUT
SHOWING ALL RAILROADS, CITIES, TOWNS
AND PRINCIPAL VILLAGES.
MADE AT THEIR COMPLETE ART-PRINTING WORKS, BUFFALO.
18 MILES TO THE INCH


THE MATTHEWS-NORTHRUP
HANDY MAP OF
MARYLAND AND DELAWARE
SHOWING ALL RAILROADS, CITIES, TOWNS
AND PRINCIPAL VILLAGES.
DISTRICT OF COLUMBIA


THE MATTHEWS-NORTHRUP
HANDY MAP OF
FLORIDA
SHOWING ALL RAILROADS, CITIES, TOWNS AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES.
0 10 20 30 40 50 60 70 80 90 100
75 MILES TO THE INCH
WESTERN PART OF
FLORIDA
Same Scale as main Map.
GEORGIA
ALABAMA
GULF OF MEXICO
ATLANTIC OCEAN
Jacksonville
Fernandina
St. Augustine
Gainesville
Ocala
Palatka
Tallahassee
Lake City
Live Oak
Tampa
Lakeland
Orlando
Kissimmee
Sanford
Leesburg
Apopka
Bartow
Winter Haven
Daytona
Deland
Titusville
Cedar Keys
Apalachicola
Pensacola
Milton
Punta Gorda
Fort Myers
Key West
Miami
Palm Beach
Jupiter
Stuart
Eden
Sebastian
Melbourne
Cocoanut Grove
Cutler
Largo
Biscayne Bay
Florida Bay
Ponce de Leon Bay
C. Sable
C. Romano
C. Canaveral
C. San Blas
St. Joseph Bay
St. Andrews Bay
Choctawhatchee Bay
Apalachicola R.
Apalachicola Bay
Tampa Bay
Charlotte Harbor
Caloosahatchee R.
Pease R.
Kissimmee R.
St. Marys R.
Suwannee R.
Ocklockony R.
Chattahoochee R.
Perdido R.
Perdido Bay
Warrington
Pensacola
Milton
Bagdad
Escambia
Muscogee
Millview
Cantonment
Flomaton
Bluff Sprs.
McDavid
Pine Barren
Milligan
Holt
Crestview
Cerro Gordo
DeFuniak Sprs.
Euchee Anna
Portland
Freeport
Argyle
Ponce de Leon
Vernon
Cottondale
Marianna
Cypress
Sneads
Campbellton
Greenwood
Blountstown
Abe's Sprs.
St. Andrews Bay
Iola
Apalachicola
Apalachicola R.
Choctawhatchee R.
Choctawhatchee Bay
St. Andrews Bay
St. Joseph Bay
C. San Blas
Longitude West from Greenwich
87° 86° 85°
10° Longitude West 9° from Washington 8°
5° Longitude West 4° from Washington
A B C D E
1 2 3 4 5 6 7
31° 30° 29° 28° 27° 26° 25°
1.96

THE MATTHEWS-NORTHRUP
HANDY MAP OF
GEORGIA
SHOWING ALL RAILROADS, CITIES, TOWNS
AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED
AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES.
0 5 10 20 30 40 50 100
68 MILES TO THE INCH
Longitude West from Greenwich
Longitude West from Washington
ATLANTA
Macon
Columbus
Augusta
SAVANNAH
Athens
Rome
Marietta
Albany
Americus
Milledge V.
Brunswick
Waycross
Valdosta
Thomasville
Bainbridge
Chattanooga
JACKSONVILLE
TALLAHASSEE
COLUMBIA
OKEFENOKEE SWAMP
Apalachee Bay
GULF OF MEXICO
ATLANTIC OCEAN
GREAT SMOKY MTS.
1.96

THE MATTHEWS-NORTHRUP
HANDY MAP OF
IDAHO
SHOWING ALL RAILROADS, CITIES, TOWNS AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES
0 10 20 30 40 50 60 70 80 90 100
79 MILES TO THE INCH
BRITISH COLUMBIA
WASHINGTON
OREGON
NEVADA
UTAH
WYOMING
MONTANA
Longitude West from Greenwich
Longitude West from Washington
Bonners Ferry
Sandpoint
Kootenai
Hope
Granite
Rathdrum
Hauser Jc.
Spokane
Old Mission
Delta
Cabinet
Thompson
Flathead Lake
Cœur d'Alene Ind. Res.
Farmington
Santa
Colfax
Viola
Moscow
Taney
Cornwall
Southwick
Cameron
Juliaetta
Geneseo
Lewiston
Asotin
Nez Perces Ind. Res.
Weippe
Lolo Fork
Clearwater
Rustic
Cottonwood
Keuterville
Clear Water
Grangeville
Mt. Idaho
Elk Cy.
Freedom
Missoula
Grantsdale
Marysville
Silver
HELENA
Drummond
Garrison
Deer Lodge
Phillipsburg
Wickes
Galvin
Rumsey
Boulder
Townsend
Anaconda
Silver Bow
Butte
Gallatin
Bozeman
Virginia City
Dillon
Salmon
Leesburg
Red Rock
Warren
Meadows
Big Payette L.
Dale
Ruthburg
Council Valley
Mineral
Spring
Salubria
Middle Valley
Huntington
Weiser
Crane
Ola
Indian Valley
Vanwyck
Alpha
Payette
Washoe
Falks Store
Emmett
Sweet
Garden Valley
Craham
Banner
Pioneerville
Quartzburg
Centerville
Placerville
Idaho Cy.
BOISE CITY
Ontario
Parma
Notus
Caldwell
Middleton
Star
Nampa
Hunter
Kuna
Mora
Owyhee
Mayfield
Bisuka
Nameko
Central
Walters
Rockville
Reynolds
Sinker
Silver City
Oreana
Castle Cr.
Grand View
Bruneau Valley
Dairy
Three Creek
Salmon Falls
Briggs
Shoshone
Shoshone Falls
Rock Cr.
Thatcher
Jessie
Albion
Rockland
Sublett
Conant
Malta
Marion
Basin
Oakley
Almo
Elba
Bridge
Raft R.
Gibbonsville
Shoup
Leesburg
Challis
Custer
Bonanza
Bay Horse
Clayton
Morse
Lemhi Ind. Res.
Lemhi Agency
Junction
Bannister
Nicholia
Dickey
Houston
Saw Tooth
Atlanta
Rocky Bar
Ketchum
Gimlet
Hailey
Bellevue
Doniphan
Humphreys
Soldier
Corral
Crichton
Leduc
Carey
Tikura
Wood
Pagari
Pina
Waucanza
Owinza
Kimama
Minidoka
Wapi
Napati
Sunshine
American Falls
Ft. Hall Ind. Res.
Oneida
Thatcher
Calvin
Swan Lake
St. Johns
Malad Cy.
Samaria
Cherry Cr.
Clifton
Weston
Fairview
Pleasant Valley
Beaver Canon
China Point
High Bridge
Small
Birch Creek
Dry Creek
St. Anthony
Camas
Egin
Wilford
Teton
Hawgood
Rexburg
Independence
Market Lake
Lyman
Platt
Rigby
Howe
Idaho Falls
Basalt
Blackfoot
Ft. Hall
Ross Fork
Pocatello
Portneuf
McCammon
Chesterfield
Squaw Cr.
Crater
Soda Sprs.
Stock Yard
Manson
Georgetown
Novene
Montpelier
Paris
Lago
Gentile Val.
Liberty
Ovid
Mink Cr.
Battle Cr.
Preston
Franklin
Bloomington
St. Charles
Fish Haven
Bear L.
Carribou
Grays
John Grays L.
Blackfoot R.
Bear Cr.
Snake River
Snake R.
Clearwater R.
Salmon R.
Lit Salmon R.
Crooked Cr.
Naples Cr.
Camas Cr.
Yankee Fk.
Salmon R.
Little Lost R.
Lost R.
Wood R.
Bruneau R.
Marys Cr.
Owyhee R.
Salmon Falls Cr.
Goose Cr.
Raft R.
Bear R.
Jefferson R.
Madison R.
Gallatin R.
Missouri R.
Tobacco R.
Flathead R.
Kootenai R.
Clarks Fork
Clarks Fk.
Bitter Root
Lost R.
Little Lost R.
Bear Cr.
Fall R.
N. Fork
Snake River Mts.
Big Belt Mts.
Bitter Root Mts.
Cœur d'Alene Mts.
Saw Tooth Mts.
Lemhi Mts.
Snake River Mts.
Yellowstone Park
Duck Valley Ind. Res.
Longitude West from Washington
1.96

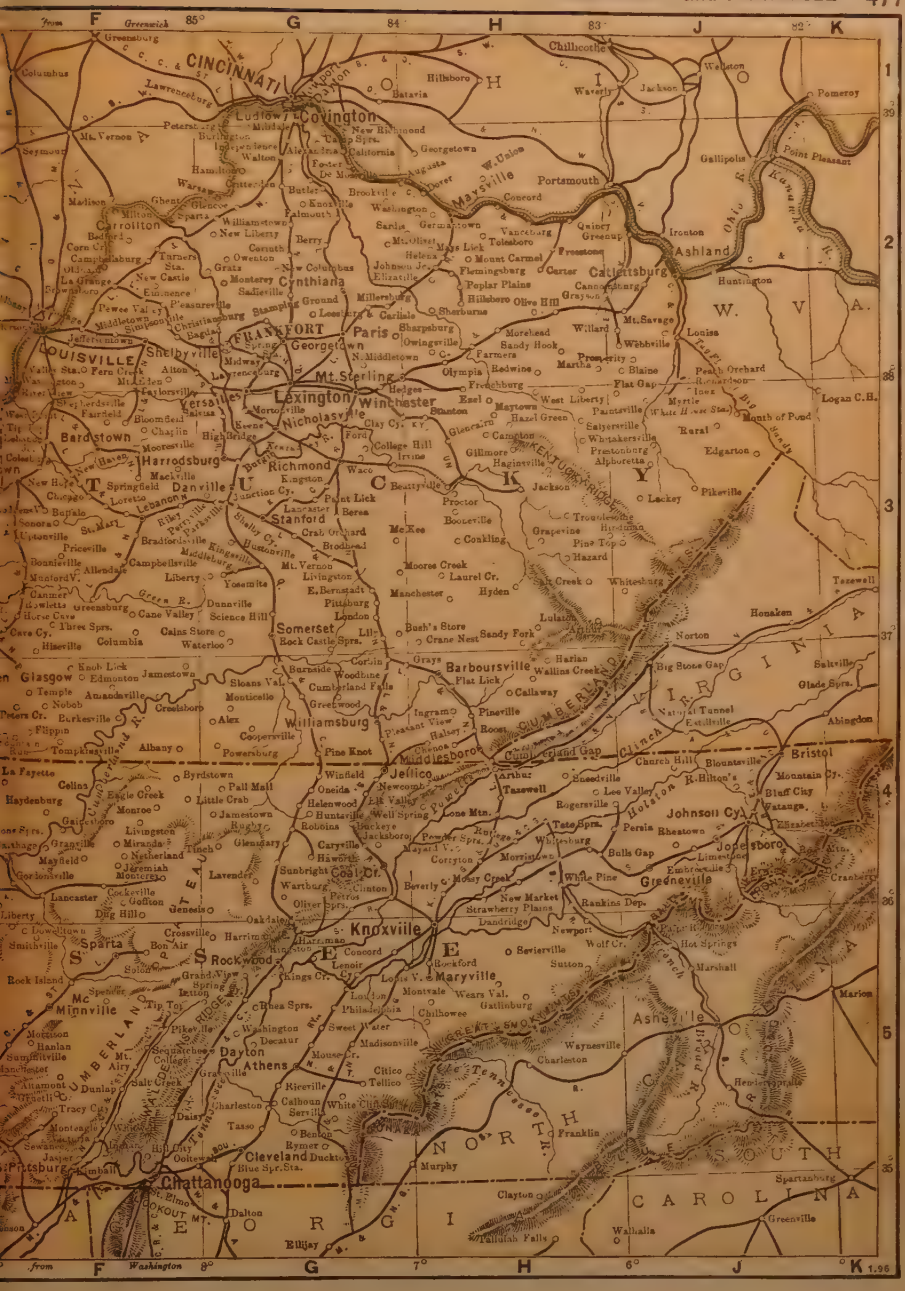

THE
MATTHEWS-NORTHRUP
HANDY MAP OF
ILLINOIS
SHOWING ALL RAILROADS, CITIES,
TOWNS AND PRINCIPAL VILLAGES
DRAWN, ENGRAVED AND PRINTED
AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES
0 10 20 30 40 50 60 70
56 MILES TO THE INCH
Longitude 90° West from 89° Greenwich
Longitude 14° West from 13 Washington
CHICAGO
Rockford
Aurora
Joliet
Peoria
Bloomington
SPRINGFIELD
Decatur
Quincy
Galesburg
Danville
Champaign
ST.LOUIS
E.St. Louis
Belleville
Alton
Cairo
Evansville
Terre Haute
Davenport
Dubuque
Burlington
Keokuk
Hannibal
Galena
Freeport
Elgin
Waukegan
Kankakee
Ottawa
La Salle
Streator
Jacksonville
Lincoln
Centralia
Mt Vernon
Vincennes
MISSISSIPPI
MISSOURI
L. MICHIGAN
1.96

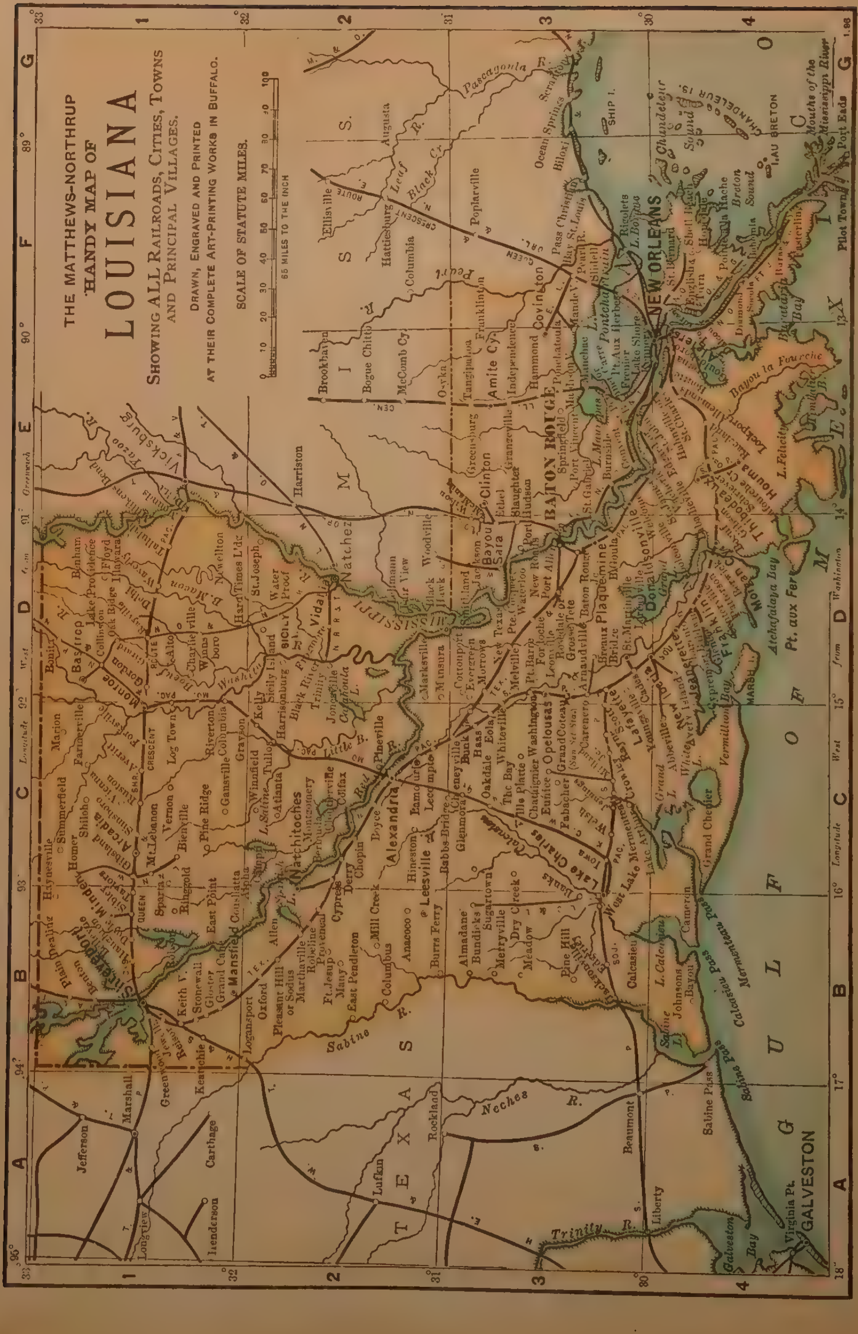
THE
MATTHEWS-NORTHRUP
HANDY MAP OF
INDIANA
SHOWING ALL RAILROADS, CITIES, TOWNS AND PRINCIPAL VILLAGES.
0 5 10 20 30 40 50
43 MILES TO THE INCH
Longitude West from Greenwich
Longitude 9° West from Washington
CHICAGO
L. MICH.
South Bend
Elkhart
Goshen
Laporte
Valparaiso
Plymouth
Warsaw
Ft. Wayne
Logansport
Peru
Wabash
Huntington
Decatur
Bluffton
Marion
Kokomo
La Fayette
Delphi
Frankfort
Anderson
Muncie
Winchester
Union City
Crawfordsville
Lebanon
INDIANAPOLIS
New Castle
Richmond
Rushville
Connersville
Shelbyville
Greensburg
Franklin
Martinsville
Terre Haute
Greencastle
Brazil
Bloomington
Bedford
Columbus
Madison
Vincennes
Washington
New Albany
Jeffersonville
LOUISVILLE
Evansville
Mt. Vernon
CINCINNATI
OHIO R.
1.96

 For INDIAN TERRITORY see page 502

THE MATTHEWS-NORTHRUP
HANDY MAP OF KANSAS,
SHOWING ALL RAILROADS, CITIES, TOWNS
AND PRINCIPAL VILLAGES.
MADE AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES.
Leavenworth
Kansas City
Atchison
Topeka
Emporia
Wichita
Hutchinson
Winfield
Arkansas City
Salina
Lawrence
Ottawa
Paola
Garnett
Iola
Humboldt
Fort Scott
Chanute
Independence
Coffeyville
Parsons
Oswego
Galena
Baxter Springs
Chetopa
Cherryvale
Neosho Falls
Yates Center
Eureka
Burlington
Ottumwa
Leavenworth
Kansas City
Atchison
Topeka
Emporia
Wichita
Hutchinson
Winfield
Arkansas City
Salina
Lawrence
Ottawa
Paola
Garnett
Iola
Humboldt
Fort Scott
Chanute
Independence
Coffeyville
Parsons
Oswego
Galena
Baxter Springs
Chetopa
Cherryvale
Neosho Falls
Yates Center
Eureka
Burlington
Ottumwa

THE MATTHEWS-NORTHRUP
HANDY MAP OF
KENTUCKY AND TENNESSEE
SHOWING ALL RAILROADS, CITIES, TOWNS
AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED
AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES.
0 10 20 30 40 50 60 70 80 90 100
49 MILES TO THE INCH
ST. LOUIS
Paducah
Princeton
Evansville
Henderson
Owensboro
Cloverport
Madisonville
Hopkinsville
Clarksville
Russellville
Franklin
Gallatin
NASHVILLE
Murfreesboro
Columbia
Shelbyville
Tullahoma
Fayetteville
Winchester
Pulaski
Huntsville
Florence
Jackson
Humboldt
Trenton
Milan
Dyersburg
Hickman
Union Cy
Fulton
Clinton
Mayfield
Paris
Brownsville
MEMPHIS
Mississippi R.
Ohio R.
Tennessee R.
Cumberland R.
Mississippi R.
Longitude West


from Greenwich
F
G
H
J
K
CINCINNATI
Covington
Ludlow
Newport
Bellevue
Dayton
Ft. Thomas
Lawrenceburg
Aurora
Rising Sun
Vevay
Madison
Milton
Carrollton
Ghent
Glencoe
Sparta
Williamstown
New Liberty
Corinth
Owenton
Monterey
Sadieville
Cynthiana
Stamping Ground
Paris
Georgetown
Frankfort
Shelbyville
Louisville
Jeffersontown
Versailles
Lexington
Mt. Sterling
Winchester
Nicholasville
Stanford
Richmond
Danville
Harrodsburg
Bardstown
Springfield
Lebanon
Campbellsville
Liberty
Somerset
Burnside
Williamsburg
Barboursville
Middlesboro
Jellico
Knoxville
Maryville
Sevierville
Newport
Cleveland
Chattanooga
Dalton
Rockwood
Sparta
Mc Minnville
Athens
Calhoun
Ducktown
Blue Spr. Sta.
Murphy
Clayton
Tallulah Falls
Walhalla
Greenville
Spartanburg
Asheville
Hendersonville
Waynesville
Charleston
Franklin
Elliljy
Ashland
Catlettsburg
Portsmouth
Gallipolis
Point Pleasant
Pomeroy
Ironton
Huntington
Louisa
Paintsville
Prestonsburg
Pikeville
Hazard
Whitesburg
Jenkins
Norton
Big Stone Gap
Saltville
Glade Spr.
Abingdon
Bristol
Johnson City
Jonesboro
Greeneville
Morristown
Rogersville
Kingsport
Bluff City
Mountain City
Elizabethton
Cranberry
Marion
Tazewell
Honaker
Lebanon
Lancaster
Richmond
Mt. Vernon
Somerset
Burnside
Jellico
Knoxville
Maryville
Sevierville
Newport
Cleveland
Chattanooga
Dalton
Rockwood
Sparta
Mc Minnville
Athens
Calhoun
Ducktown
Blue Spr. Sta.
Murphy
Clayton
Tallulah Falls
Walhalla
Greenville
Spartanburg
Asheville
Hendersonville
Waynesville
Charleston
Franklin
Elliljy
Ashland
Catlettsburg
Portsmouth
Gallipolis
Point Pleasant
Pomeroy
Ironton
Huntington
Louisa
Paintsville
Prestonsburg
Pikeville
Hazard
Whitesburg
Jenkins
Norton
Big Stone Gap
Saltville
Glade Spr.
Abingdon
Bristol
Johnson City
Jonesboro
Greeneville
Morristown
Rogersville
Kingsport
Bluff City
Mountain City
Elizabethton
Cranberry
Marion
Tazewell
Honaker
Lebanon
Lancaster
Richmond
Mt. Vernon
Somerset
Burnside
Jellico
Knoxville
Maryville
Sevierville
Newport
Cleveland
Chattanooga
Dalton
Rockwood
Sparta
Mc Minnville
Athens
Calhoun
Ducktown
Blue Spr. Sta.
Murphy
Clayton
Tallulah Falls
Walhalla
Greenville
Spartanburg
Asheville
Hendersonville
Waynesville
Charleston
Franklin
Elliljy
from Washington
8°
7°
6°
1.96
W. V. A.
KENTUCKY
TENNESSEE
VIRGINIA
NORTH CAROLINA
SOUTH CAROLINA
GEORGIA
ALABAMA
CUMBERLAND RIVER
CUMBERLAND GAP
CLINCH MT.
BLUE RIDGE
GREAT SMOKY MTS.
Ohio River
Kanawha R.
Big Sandy R.
Tennessee R.
Cumberland R.
Kentucky R.
Licking R.
Green R.
Tradewater R.
Clinch R.
Holston R.
Nolichucky R.
French Broad R.
Hiwassee R.
Ocoee R.
Little Tennessee R.
Pigeon R.
Nolichucky R.
Cumberland Gap
Cumberland Ford
Pineville
Harlan
Wallins Creek
Big Stone Gap
Saltville
Glade Spr.
Abingdon
Bristol
Johnson City
Jonesboro
Greeneville
Morristown
Rogersville
Kingsport
Bluff City
Mountain City
Elizabethton
Cranberry
Marion
Tazewell
Honaker
Lebanon
Lancaster
Richmond
Mt. Vernon
Somerset
Burnside
Jellico
Knoxville
Maryville
Sevierville
Newport
Cleveland
Chattanooga
Dalton
Rockwood
Sparta
Mc Minnville
Athens
Calhoun
Ducktown
Blue Spr. Sta.
Murphy
Clayton
Tallulah Falls
Walhalla
Greenville
Spartanburg
Asheville
Hendersonville
Waynesville
Charleston
Franklin
Elliljy


THE MATTHEWS-NORTHRUP
HANDY MAP OF
LOUISIANA
SHOWING ALL RAILROADS, CITIES, TOWNS AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES.
65 MILES TO THE INCH

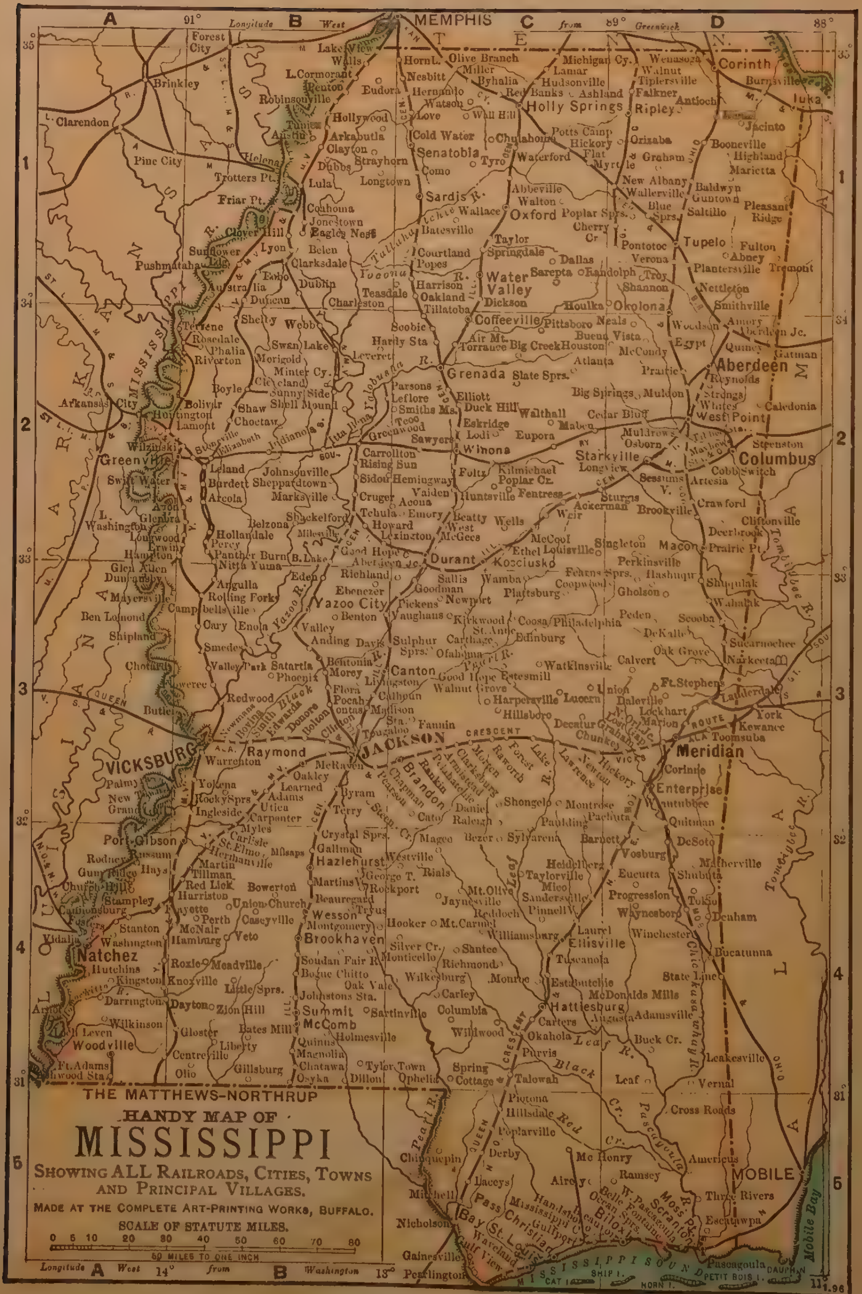
THE MATTHEWS-NORTHRUP
HANDY MAP OF
MAINE
SHOWING ALL RAILROADS, CITIES, TOWNS AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED
AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES.
0 10 20 30 40 50 60 70 80 90 100
47 MILES TO ONE INCH
DOMINION OF CANADA
QUEBEC
NEW BRUNSWICK
ATLANTIC OCEAN
Longitude West from Greenwich
Longitude East from Washington
PORTLAND
Bangor
AUGUSTA
Lewiston
Auburn
Rockland
Bath
Biddeford
Saco
Portsmouth
Kennebec R.
Casco Bay
Penobscot Bay
Boothbay Harbor
Mt. Desert Rock
Matinicus Island
Eastport
Calais
St. John R.
Moosehead L.
Sebago L.
Chamberlain L.
Umbagog L.
Richardson L.
Mt. Katahdin
Mt. Kineo
Mt. Abraham
Mt. Desert I.
Grand Falls
Aroostook
Fairfield
Skowhegan
Farmington
Waterville
Belfast
Ellsworth
Machias
Calais

 For Maryland see page 468

THE MATTHEWS-NORTHRUP
HANDY MAP OF
MINNESOTA
SHOWING ALL RAILROADS, CITIES, TOWNS
AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED
AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES.
0 10 20 30 40 50 60 70 80 90 100
80 MILES TO THE INCH
MANITOBA
WINNIPEG
MINNEAPOLIS
ST. PAUL
Duluth
St. Cloud
Stillwater
Mankato
Winona
La Crosse
Eau Claire
Ashland
LAKE SUPERIOR
Lake of the Woods
Red Lake
Mille Lacs
Longitude 94° West from Greenwich
Longitude 17° West from Washington

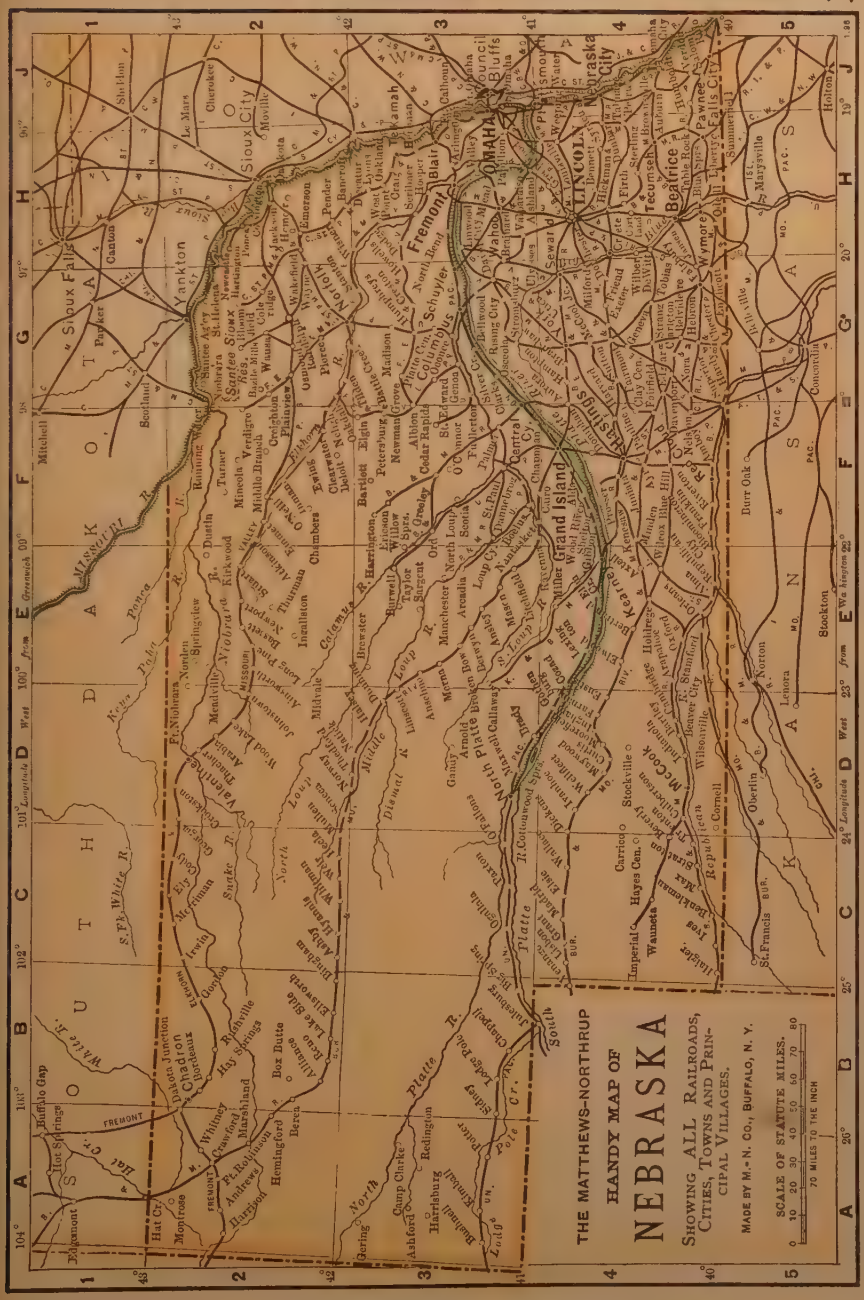
THE MATTHEWS-NORTHRUP
HANDY MAP OF
MICHIGAN
AND
WISCONSIN
SHOWING ALL RAILROADS, CITIES, TOWNS AND PRINCIPAL VILLAGES.
SCALE OF STATUTE MILES.
0 10 20 30 40 50 60 70 80 90 100
61 MILES TO THE INCH
L A K E
S U
APOSTLE ISLANDS
MADALINE I.
STANNARDS ROCK
Duluth
West Superior
Superior
Two Harbors
Beaver Bay
Bayfield
Washburn
La Pointe
Ashland
Ironwood
Ontonagon
Calumet
Houghton
Marquette
Escanaba
Iron Mountain
Rhinelander
Wausau
Merrill
Stevens Point
Eau Claire
Chippewa Falls
Menomonie
Hudson
St. Paul
Hastings
Red Wing
Winona
La Crosse
Sparta
Green Bay
De Pere
Appleton
Neenah
Oshkosh
Fond du Lac
Sheboygan
Manitowoc
Portage
Baraboo
MADISON
Watertown
Waukesha
MILWAUKEE
Racine
Kenosha
Waukegan
Evanston
Janesville
Beloit
Rockford
Freeport
Galena
Dubuque
Clinton
Elgin
Aurora
Platteville
Mineral Point
Prairie du Chien
I L L I N O I S

Longitude G West 86° from H Greenwich 85° J 84° K 83° L 82° M
LAKE SUPERIOR
Port Arthur
Ft. William
Thunder Bay
PASSAGE I.
Scoville Pt.
Minong
ISLE ROYALE
(To Michigan)
Washington Bay
PHELPS I.
SISCOWIT IS
LAKE MICHIGAN
LAKE HURON
Georgian Bay
North Passage
Sault de Ste. Marie
White Fish Pt.
Grand Marais
Deer Park
Munising
Manistique
Trout Lake
Kenneth
Naubinway
Pine Riv.
Pickford
Moran
Orville
Gilchrist
Corinne
Manistique
Thompson
Escanaba
Garden
Fayette
Gladstone
Day Pt.
Menominee
Cooks
Mackinaw
MACKINAC ISL.
BOIS BLANC ISL.
Cheboygan
ST. JOSEPH
GRAND MANITOULIN ISLAND
St. Ignace
HOG I.
St. James
BEAVER I.
HIGH I.
Levering
Harbor Springs
Little Traverse B.
Petoskey
Charlevoix
FOX IS.
WASHINGTON I.
N. MANITOU
S. MANITOU
Northport
Leland
Glen Arbor
Elk Rapids
Traverse City
Maple City
Benzonia
Frankfort
S. Frankfort
Thompsonville
Bear L.
Onekama
Manistee
Stronach
Free Soil
Ludington
Buttersville
Pent Water
Mears
Shelby
Montague
Whitehall
Muskegon
Fruitport
Grand Haven
Spring Lake
Holland
Ottawa Beach
Saugatuck
Douglas
South Haven
Hartford
Benton Harbor
St. Joseph
Dowagiac
Berrien Springs
Buchanan
New Buffalo
Niles
Michigan City
Burt L.
Mullett Lake
Topinabee
Indian R.
Adaiaska
Rogers City
Wolverine
Vanderbilt
Bolton
Gaylord
Jackson
Gaylord
Hillman
Alpena
Bell
C. Hurd
Thunder Bay
Black River
Harrisville
Ossineke
Atlanta
Big Rock
Otsego Lake
Twin Lake
Hubbard L.
Fairview
McKinley
Grayling
Cheney
Luzerne
Thompson
Greenbush
Oscoda
Au Sable
East Tawas
Tawas City
Emery Jo.
Omer
Au Gres
Kincardine
Port Austin
Port Crescent
Port Hope
Sand Beach
Caseville
Bad Axe
Ubly
Minden City
Forestville
Palm Sta.
Goderich
Sebewaing
Unionville
Gagetown
Cass Cy.
Bay City
Fair Grove
Sanilac Cen.
Carsonville
Port Sanilac
Clifford
Marlette
Brown Cy.
Lexington
Cosswell
Port Huron
Sarnia
St. Clair
Marine Cy.
Mt. Clemens
Algonac
L. St. Clair
DETROIT
Windsor
Wyandotte
Essex Cen.
Leamington
Flat Rock
Monroe
Toledo
Detroit River
PT. PELEE I.
Chatham
Saginaw
Zilwaukee
Frankenmuth
Vassar
Caro
Paines
St. Charles
Mayville
Otter L.
Fostoria
Chesaning
Flushing
Flint
Durand
Owosso
Corunna
Lapeer
Imlay City
Capac
Almont
Richmond
Romeo
Lenox
Rochester
Oxford
Holly
Pontiac
Utica
Birmingham
Northville
Plymouth
Ypsilanti
Wayne
Romulus
Milan
Carleton
Dundee
Petersburg
Tecumseh
Hudson
Morenci
Hillsdale
Litchfield
Clinton
Addison
Hanover
Jerome
Jonesville
Coldwater
Bronson
Quincy
Bankers
Reading
Sturgis
Constantine
Cassopolis
White Pigeon
Three Rivers
Schoolcraft
Vicksburg
Kalamazoo
Albion
Homer
Lawton
Decatur
Paw Paw
Bangor
Allegan
Otsego
Plainwell
Hastings
Middleville
Wayland
Zeeland
Grand Rapids
Grand Ledge
Lansing
Williamston
Mason
Charlotte
Eaton Rapids
Nashville
Bellevue
Augusta
Battle Creek
Marshall
Jackson
Leslie
River Jc.
Pinckney
Dexter
Chelsea
Ann Arbor
Manchester
Brighton
Milford
Fenton
Linden
Holly
Flint
Owosso
Durand
Ionia
Lowell
Saranac
Portland
Pewamo
Lyons
St. Johns
Ovid
Elsie
Ashley
St. Louis
Alma
Shepherd
Mt. Pleasant
Chippewa L.
Big Rapids
Hersey
Morley
Mecosta
Croton
Newaygo
Howard Cy.
Cedar Spgs.
Edmore
Coral
Stanton
Sheridan
Summer
Ithaca
Carson Cy.
Greenville
Belding
Rockford
Sparta
Lakeview
Stetson
Hesperia
White Cloud
Fremont
Hart
Shelby
Baldwin
W. Troy
Chase
Sisson
Cadillac
Olga
Tustin
Carey
Hobart
Marion
Le Roy
Harrison
Evart
Reed Cy.
Lutlier
Scottville
Kingsley
Copemish
Wallon
Sherman
Manton
Lake Cy.
Houghton L.
Roscommon
Pine Ridge
St. Helen
Sages L.
Oscemaw Spgs.
West Branch
Beaver L.
Meredith
Alger
Gladwin
Standish
Pinconning
Coleman
Clare
Farwell
Alma
Midland
Bay City
Sebewaing
Unionville
Gagetown
Cass Cy.
Caro
Vassar
Marlette
Brown Cy.
Lexington
Cosswell
Port Huron
Sarnia
St. Clair
Marine Cy.
Mt. Clemens
Algonac
L. St. Clair
DETROIT
Windsor
Wyandotte
Essex Cen.
Leamington
Flat Rock
Monroe
Toledo
Detroit River
PT. PELEE I.
Chatham
Michigan City
Longitude G 9° West 8° from J Washington 7° K 6° L 5° M 1.96


THE MATTHEWS-NORTHRUP
HANDY MAP OF
MISSISSIPPI
SHOWING ALL RAILROADS, CITIES, TOWNS AND PRINCIPAL VILLAGES.
MADE AT THE COMPLETE ART-PRINTING WORKS, BUFFALO.
SCALE OF STATUTE MILES.
0 5 10 20 30 40 50 60 70 80
50 MILES TO ONE INCH
Longitude West 14° from Washington 13°
Longitude 91° from Greenwich 89° 88°
MEMPHIS
TENN.
ARKANSAS
LOUISIANA
ALABAMA
MISSISSIPPI R.
JACKSON
VICKSBURG
Natchez
Meridian
Columbus
Aberdeen
Corinth
Holly Springs
Oxford
Grenada
Greenville
Yazoo City
Canton
Kosciusko
Starkville
West Point
Tupelo
Okolona
Water Valley
Coffeeville
Winona
Durant
Hattiesburg
Brookhaven
Hazlehurst
McComb
Summit
Woodville
Port Gibson
Enterprise
MOBILE
Mobile Bay
Biloxi
Bay St. Louis
Pass Christian
Pascagoula
MISSISSIPPI SOUND
SHIP I.
CAT I.
HORN I.
PETIT BOIS I.
DAUPHIN I.
Pearl R.
Yazoo R.
Big Black R.
Tombigbee R.
Pascagoula R.
Leaf R.
CRESCENT ROUTE
QUEEN & CRESCENT
ILL. CEN.
1.96

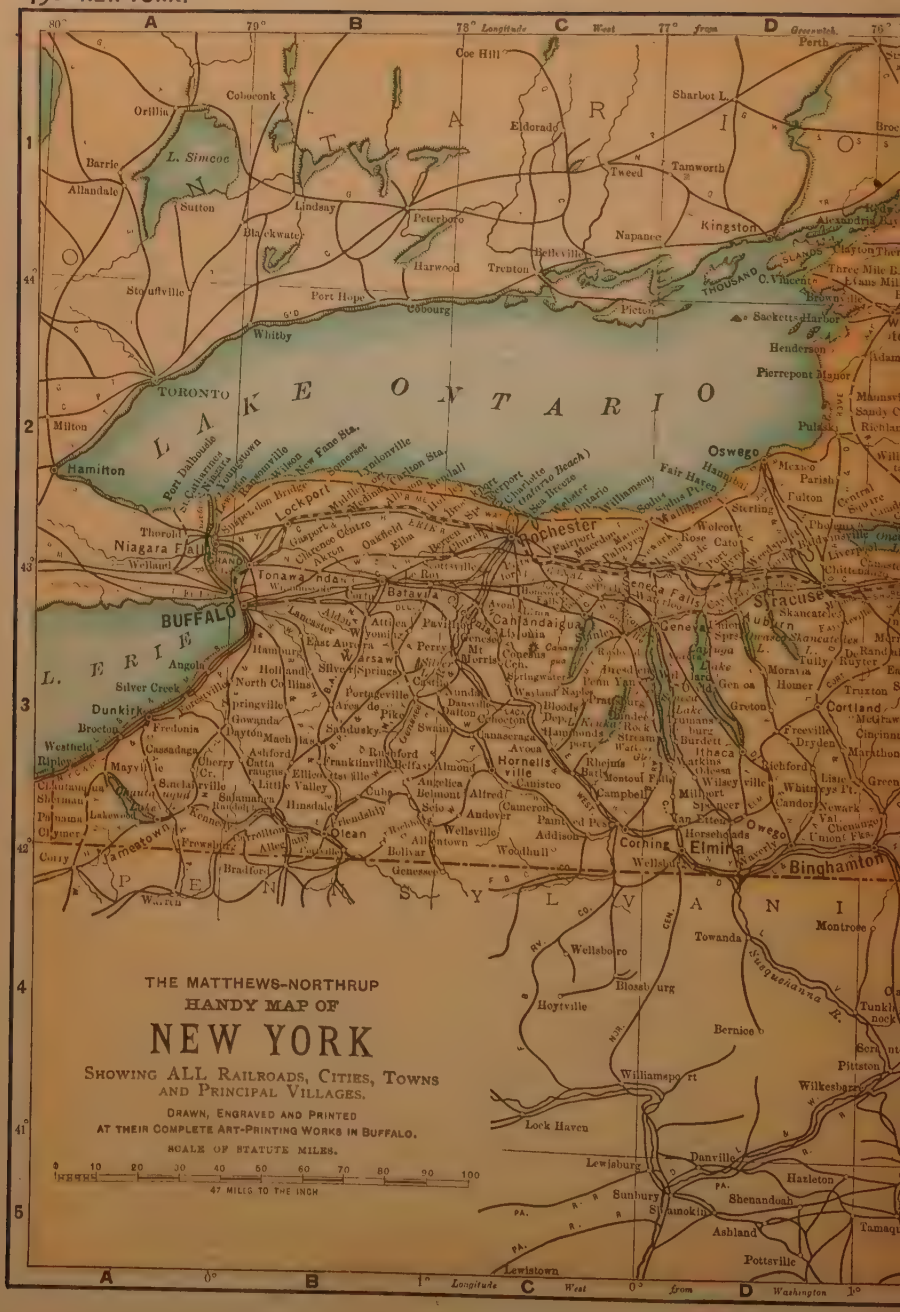
THE MATTHEWS-NORTHRUP
HANDY MAP OF
MISSOURI
SHOWING ALL RAILROADS, CITIES, TOWNS
AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED
AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES.
0 10 20 30 40 50 60 70 80 90 100
76 MILES TO THE INCH
ST. LOUIS
KANSAS CY.
ST. JOSEPH
Springfield
Sedalia
Hannibal
Quincy
Keokuk
Cairo
Evansville
Nebraska Cy.
Kansas
Missouri
Mississippi
Illinois
Iowa
Kentucky
Tennessee
Arkansas
Indian Ter.

For NEVADA see page 484


THE MATTHEWS-NORTHRUP
HANDY MAP OF
NEBRASKA
SHOWING ALL RAILROADS, CITIES, TOWNS AND PRINCIPAL VILLAGES.
MADE BY M.-N. CO., BUFFALO, N. Y.
SCALE OF STATUTE MILES.
0 10 20 30 40 50 60 70 80
70 MILES TO THE INCH
OMAHA
LINCOLN
Nebraska City
Council Bluffs
Sioux City
Sioux Falls
Yankton
Fremont
Blair
Tekamah
Beatrice
Grand Island
Kearney
North Platte
Chadron
Valentine
Norfolk
Wayne
Hastings
Red Cloud
Superior
Nelson
Ord
Broken Bow
Ainsworth
Bassett
Gordon
Rushville
Hay Springs
Box Butte
Alliance
Lake Side
Ellsworth
Hemingford
Dakota Junction
Bordeaux
Buffalo Gap
Hot Springs
Fall City
Pawnee
Falls City
Tecumseh
Auburn
Nebraska City
Plattsmouth
Weeping Water
Ashland
Wahoo
Schuyler
Columbus
Norfolk
Wayne
Pierce
Madison
Neligh
Ainsworth
Valentine
Cody
Thedford
Ogallala
Sidney
Chappell
Lodge Pole
Julesburg
Ft. Sidney
Ft. Robinson
Crawford
Marshland
Andrews
Harrison
Hat Cr.
Montrose
Bridgeport
Gering
Camp Clarke
Ashford
Harlburg
Redington
Bloomfield
Wausa
Niobrara
Ponca
Pender
Emerson
Wakefield
Coleridge
Laurel
Wisner
Pilger
Stanton
Norfolk
Tilden
Neligh
Oakdale
Ewing
Atkinson
Stuart
Long Pine
Bassett

THE MATTHEWS-NORTHRUP
HANDY MAP OF
NEW JERSEY
SHOWING ALL RAILROADS, CITIES, TOWNS AND PRINCIPAL VILLAGES.
SCALE OF STATUTE MILES.
0 5 10 20 30
26 MILES TO THE INCH
Longitude 75° West from Greenwich
Longitude 2° 30' East from Washington
PENNSYLVANIA
NEW YORK
DELAWARE
DELAWARE BAY
ATLANTIC OCEAN
PHILADELPHIA
Camden
TRENTON
NEWARK
JERSEY CY.
Elizabeth
Paterson
BROOKLYN
New Brunswick
Morristown
Atlantic City
Salem
Bridgeton
Millville
Vineland
Wilmington
Easton
Phillipsburg
Allentown
Cape May Point
Sewells Pt.

THE MATTHEWS-NORTHRUP
HANDY MAP OF
NEW MEXICO
SHOWING ALL RAILROADS, CITIES, TOWNS
AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED
AT THEIR COMPLETE ART-PRINTING WORKS, BUFFALO.
SCALE OF STATUTE MILES.
0 10 20 30 40 50 60 70 80 90 100
67 MILES TO THE INCH
Longitude 106° West from 105° Greenwich
Longitude 29° West from 28° Washington
Canon Cy.
Pueblo
Rosita
West Cliff
La Junta
Las Animas
Arkansas R.
MT. BLANCA
Walsenburg
Alamosa
SPANISH PKS.
El Moro
Trinidad
Conejos
Antonito
Emery Gap
Cimarron R.
Folsom
Des Moines
Grenville
Clayton
La Plata
Rosa
Amargo
Monero
Chama
Park View
Jewett
Aztec
Olio
Flora Vista
Bloomfield
Farmington
Largo
Tierra Amarilla
Cribbenville
Servilleta
Vallecitos
El Rito
Caliente
Ojo Caliente
Abiquiu
Chamita
Palmilla
Costilla
Volcano
Questa
Arroyo Seco
Taos
Ranches of Taos
Cimarron
Rayado
Raton
Dillon
Otero
Dorsey
Maxwell Cy
SIERRA GRANDE
Grande
Chico Sprs.
Mt. Dora
Springer
Gladstone
Colmor
Louis
Clapham
Baca
Albert
Levy
Wagon Mound
Tipton
Watrous
Bell Ranch
Genova
NAVAJO IND. RES.
Barranca
Embudo
Alcalde
Santa Cruz
Espanola
Archuleta
Pojuaque
Mora
Cuba
Copper
SANTA FE
Las Vegas Hot Sprs.
Las Vegas
East Las Vegas
Tecolete
Fulton
Lamy
Rowe
Galisteo
Bernal
Gallinas Spr.
Liberty
Johnson
El Cuervo
Endee
Ft. Wingate
Mil. Res.
Ramah
Gallup
Coolidge
Continental Divide
Atlantic & Pacific
Blue Water
San Mateo
Jemez
Algodones
Cerrillos
Bernalillo
Golden
Alameda
San Pedro
Corrales
Seboyeta
Laguna
El Pueblo
Anton Chico
Las Colonias
Albuquerque
Zuni Ind. Res.
Zuni Plateau
Lava Bed
San Jose
Rio Puerco
Luna
Isleta
A. & P. Jc.
Chilili
Peralta
Tajique
Los Lunas
Tome
Manzano
Belen
Sabinal
Alkali Ponds
Salt Basin
Santa Rosa
Puerto de Luna
Arroyo Salado
Ft. Sumner
Pinos Wells
SOLDIER MESA
Arroyo Blanco
La Joya
PINON MT.
Datil
Alamillo
San Acacia
Red Cloud
Magdalena
Socorro
Kelly
San Antonio
Carthage
Arny
San Marcial
Los Lentes
Beaver
Patterson
Joseph
Frisco
Ft. Craig Mil. Res.
Paraje
Pope
Grafton
Monticello
Lava
Cooney
Fair View
Alma
Chloride
Cuchillo
Crocker
Engle
Hermosa
Las Palomas
Cutter
White Oaks
Nogal
Fort Stanton
Lincoln
Parsons
Bonito
Ruidoso
Roswell
Mescalero Apache Ind. Res.
Mescalero
Rio Hondo
Tularosa
LLANO ESTACADO
Rio Felix
Carlisle
Gila
Pinos Altos
George T. Kingston
Hillsboro
Silver Cy.
Ft. Bayard
Santa Rita
Central
Lake Valley
Hatch
Upham
Grama
Rincon
La Luz
Upper Penasco
Lower Penasco
Weed
Rio Penasco
SACRAMENTO MTS.
Seven Rivers
Whitewater
Summit
Hudson
Gold Hill
Crawford
Nutt
Sellers
Florida
Coleman
Fort Selden
Dona Ana
Organ
Lordsburg
Lisbon
Separ
Pyramid
Steins Pass
Gage
Tunis
Deming
Wilna
Cambray
Zuni
Mesilla
Las Cruces
Mesquite
Aden
Victoria
Brunswick
Eddy
Malaga
GUADALUPE MTS.
Seven R.
Afton
Lanark
Anthony
Strauss
El Paso
Ysleta
Hachita
Carizillo
Ciudad Juarez
Lago de Guzman
Casas Grande
Rio de Casas Grande
Candelaria
Sierra Blanca
Pecos
TEXAS
MEXICO
Rio Grande
Pecos R.
COLORADO


THE MATTHEWS-NORTHRUP
HANDY MAP OF
NEW YORK
SHOWING ALL RAILROADS, CITIES, TOWNS AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES.
0 10 20 30 40 50 60 70 80 90 100
47 MILES TO THE INCH
LAKE ONTARIO
L. ERIE
BUFFALO
TORONTO
Hamilton
Niagara Falls
Lockport
Rochester
Oswego
Syracuse
Canandaigua
Geneva
Ithaca
Cortland
Elmira
Corning
Binghamton
Hornellsville
Olean
Jamestown
Dunkirk
Batavia
Warsaw
Tonawanda
Kingston
Sharbot L.
Tamworth
Tweed
Eldorado
Coe Hill
Peterboro
Lindsay
Port Hope
Cobourg
Whitby
Trenton
Belleville
Napanee
Picton
Sacketts Harbor
Henderson
Pierrepont Manor
Pulaski
Mexico
Parish
Fulton
Sterling
Wolcott
Rose
Cato
Fair Haven
Hannibal
Williamson
Sodus
Wallington
Ontario
Webster
Sea Breeze
Charlotte
Ontario Beach
Kendall
Carlton Sta.
Lyndonville
Somerset
New Fane Sta.
Wilson
Ransomville
Youngstown
Niagara
Lewiston
Suspension Bridge
Port Dalhousie
St. Catharines
Thorold
Welland
Lancaster
Aldon
Attica
Wyoming
East Aurora
Hamburg
Holland
North Collins
Springville
Gowanda
Dayton
Machias
Ashford
Cattaraugus
Little Valley
Ellicottsville
Franklinville
Belfast
Rushford
Portageville
Pike
Sandusky
Swain
Dalton
Canaseraga
Avoca
Almond
Angelica
Belmont
Scio
Alfred
Andover
Cameron
Wellsville
Allentown
Bolivar
Genessee
Friendship
Cuba
Hinsdale
Salamanca
Randolph
Kennedy
Frewsburg
Carrollton
Allegany
Cortville
Bradford
Warren
Corry
Clymer
Panama
Sherman
Chautauqua
Mayville
Westfield
Ripley
Brocton
Fredonia
Cassadaga
Sinclairville
Lakewood
Cherry Cr.
Silver Creek
Angola
Forestville
Hamburg
Silver Springs
Perry
Mt Morris
Genesee
Livonia
Conesus
Springwater
Wayland
Naples
Bloods
Dep.
Hammondsport
Rhejms
Montour Falls
Campbell
Pratisburg
Dundee
Rock Stream
Watkins
Odessa
Wilseyville
Millport
Spencer
Van Etten
Horseheads
Owego
Waverly
Greton
Genoa
Moravia
Homer
Tully
Skaneateles
Auburn
Owasco L.
Skaneateles L.
Cayuga Lake
Seneca Falls
Waterloo
Penn Yan
Dresden
Stanley
Rushville
Canisteo
Paintned Post
Addison
Woodhull
Wellsburg
Towanda
Montrose
Susquehanna R.
Wellsboro
Blossburg
Hoytville
Bernice
Williamsport
Lock Haven
Lewisburg
Danville
Sunbury
Shamokin
Ashland
Pottsville
Lewistown
Hazleton
Shenandoah
Pittston
Wilkesbarre
Tamaqua
Chenango
Union Fks.
Newark Val.
Candor
Whitneys Pt.
Lisle
Richford
Freeville
Dryden
Marathon
Cincinnati
McGraw
Truxton
Cortland
Homer
Tully
Ruyter
Skaneateles
Liverpool
Baldwinsville
Phoenix
Central Square
Fulton
Mexico
Parish
Sterling
Wolcott
Rose
Cato
Port Byron
Clyde
Newark
Lyons
Palmyra
Macedon
Fairport
Ontario
Webster
Sea Breeze
Charlotte
Ontario Beach
Sodus Pt.
Williamson
Fairport
Pittsford
Brockport
Hoyt
Kendall
Carlton Sta.
Lyndonville
Somerset
New Fane Sta.
Wilson
Ransomville
Youngstown
Niagara
Lewiston
Suspension Bridge
Port Dalhousie
St. Catharines
Thorold
Niagara Falls
Welland
Lockport
Gasport
Clarence Centre
Akron
Oakfield
Elba
Bergen
Church
Scottsville
Le Roy
Corfu
Alden
Lancaster
Attica
Wyoming
Pavilion
Genesee
Mt Morris
Nunda
Dansville
Dalton
Cohocton
Canaseraga
Avoca
Hornellsville
Rhejms
Montour Falls
Campbell
Pratisburg
Dundee
Rock Stream
Watkins
Odessa
Wilseyville
Millport
Spencer
Van Etten
Horseheads
Owego
Waverly
Elmira
Binghamton
Cortland
Freeville
Dryden
Marathon
Cincinnati
McGraw
Truxton
Cortland
Homer
Tully
Ruyter
Skaneateles
Liverpool
Baldwinsville
Phoenix
Central Square
Mannsville
Sandy C.
Richland
Adams
Brownville
Evans Mills
Three Mile B.
Clayton
Alexandria Bay
Redwood
Perth
Broc
Sharbot L.
Tamworth
Tweed
Eldorado
Coe Hill
Coboconk
Orillia
Barrie
Allandale
L. Simcoe
Sutton
Blackwater
Stouffville
Milton
Hamilton
Lake Ontario
Pennsylvania
Longitude West from Greenwich
Longitude West from Washington
A B C D
80° 79° 78° 77° 76°
1 2 3 4 5
44° 43° 42° 41°
0° 1° 0° 1°

MAP OF
NEW YORK
CITY
AND VICINITY
SCALE OF MILES.
ADIRONDACK
MOUNTAINS
CATSKILL
LONG ISLAND SOUND
NEW YORK BAY
BROOKLYN
LONG ISLAND
ATLANTIC OCEAN
NEW JERSEY

THE MATTHEWS-NORTHRUP
HANDY MAP OF
NORTH CAROLINA
SHOWING ALL RAILROADS, CITIES, TOWNS
AND PRINCIPAL VILLAGES,
DRAWN, ENGRAVED AND PRINTED
AT THEIR COMPLETE ART-PRINTING WORKS, BUFFALO.
SCALE OF STATUTE MILES.
10 0 10 20 30 40 50 60 70 80 90 100
22 MILES TO THE INCH
WILMINGTON
CHARLESTON
Charlotte
Raleigh
Fayetteville
Wilson
Greenville
Goldsboro
Salisbury
Asheville
Winston
Greensboro
Durham
Lynchburg
Petersburg
Portsmouth
Danville
Roanoke
Knoxville
Chattanooga
Columbia
Sumter
Florence
Cheraw
Lancaster
Camden
Orangeburg
Kingstree
Georgetown
Hatteras
C. Lookout
C. Fear
C. Romain
Pamlico Sound
Albemarle Sound
Ocean View
Wrightsville
Carolina Beach
Fort Caswell
Southport
Shallotte
Conway
Marion
Lumberton
Laurinburg
Hamlet
Wadesboro
Monroe
Gastonia
Shelby
Rutherfordton
Morganton
Hickory
Lenoir
Statesville
Mocksville
Salisbury
Kernersville
Reidsville
Oxford
Henderson
Williamsburg
Weldon
Tarboro
Rocky Mount
Wilson
Goldsboro
Kinston
Washington
Edenton
Elizabeth City
Nags Head
Kitty Hawk
Manteo
Ocracoke
Beaufort
Morehead City
Swansboro
Jacksonville
Tarboro
Scotland Neck
Roanoke Rapids
Weldon
Franklin
Hendersonville
Brevard
Waynesville
Sylva
Murphy
Bryson City
Cherokee
Lenoir
Morganton
Marion
Rutherfordton
Shelby
Gastonia
Lincolnton
Newton
Hickory
Statesville
Mocksville
Salisbury
Kernersville
Reidsville
Oxford
Henderson
Williamsburg
Weldon
Tarboro
Rocky Mount
Wilson
Goldsboro
Kinston
Washington
Edenton
Elizabeth City
Nags Head
Kitty Hawk
Manteo
Ocracoke
Beaufort
Morehead City
Swansboro
Jacksonville
Tarboro
Scotland Neck
Roanoke Rapids
Weldon
Franklin
Hendersonville
Brevard
Waynesville
Sylva
Murphy
Bryson City
Cherokee
Lenoir
Morganton
Marion
Rutherfordton
Shelby
Gastonia
Lincolnton
Newton
Hickory
Statesville
Mocksville
Salisbury
Kernersville
Reidsville
Oxford
Henderson
Williamsburg
Weldon
Tarboro
Rocky Mount
Wilson
Goldsboro
Kinston
Washington
Edenton
Elizabeth City
Nags Head
Kitty Hawk
Manteo
Ocracoke
Beaufort
Morehead City
Swansboro
Jacksonville
Tarboro
Scotland Neck
Roanoke Rapids
Weldon
Franklin
Hendersonville
Brevard
Waynesville
Sylva
Murphy
Bryson City
Cherokee
Lenoir
Morganton
Marion
Rutherfordton
Shelby
Gastonia
Lincolnton
Newton
Hickory
Statesville
Mocksville
Salisbury
Kernersville
Reidsville
Oxford
Henderson
Williamsburg
Weldon
Tarboro
Rocky Mount
Wilson
Goldsboro
Kinston
Washington
Edenton
Elizabeth City
Nags Head
Kitty Hawk
Manteo
Ocracoke
Beaufort
Morehead City
Swansboro
Jacksonville
Tarboro
Scotland Neck
Roanoke Rapids
Weldon
Franklin
Hendersonville
Brevard
Waynesville
Sylva
Murphy
Bryson City
Cherokee
Lenoir
Morganton
Marion
Rutherfordton
Shelby
Gastonia
Lincolnton
Newton
Hickory

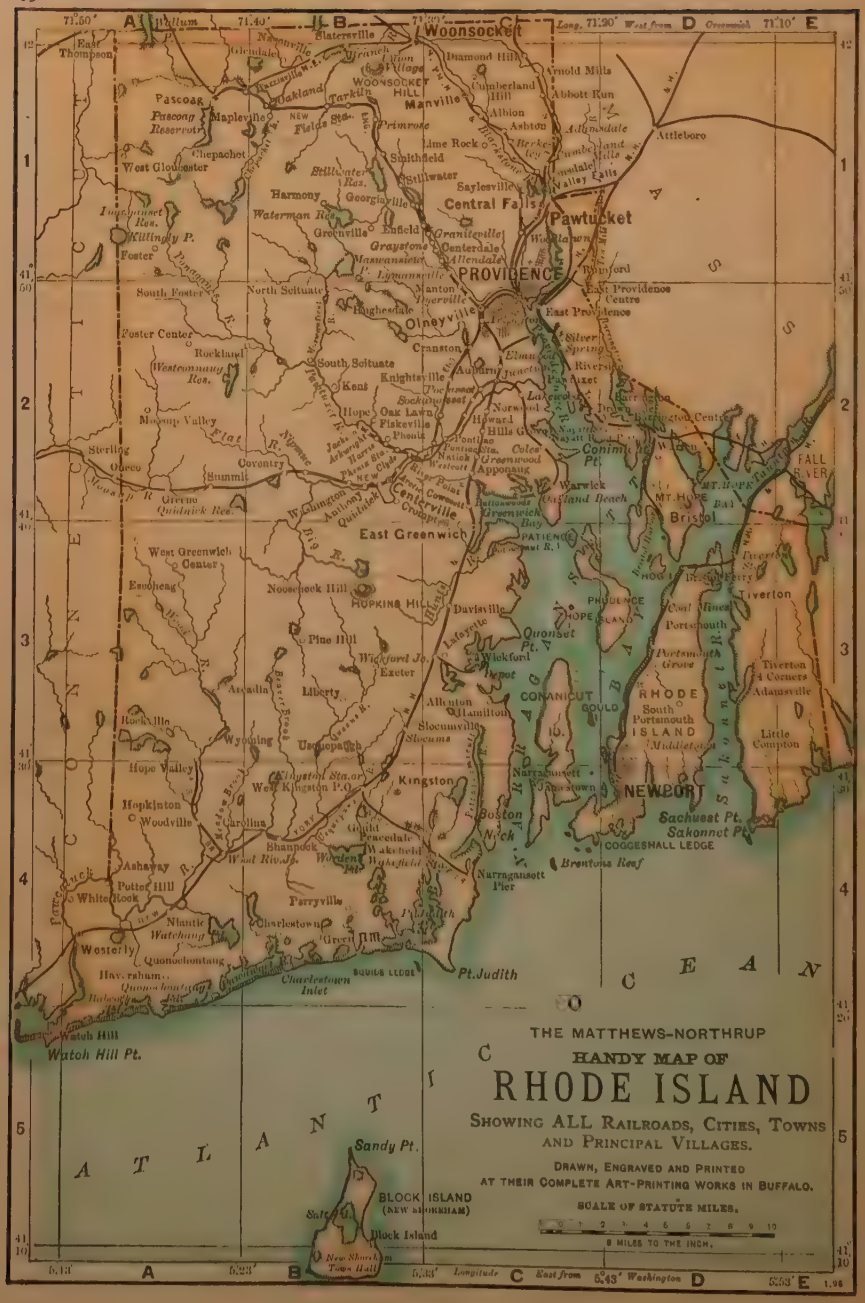
THE MATTHEWS-NORTHRUP
HANDY MAP OF NORTH DAKOTA
SHOWING ALL RAILROADS, CITIES, TOWNS
AND PRINCIPAL VILLAGES.

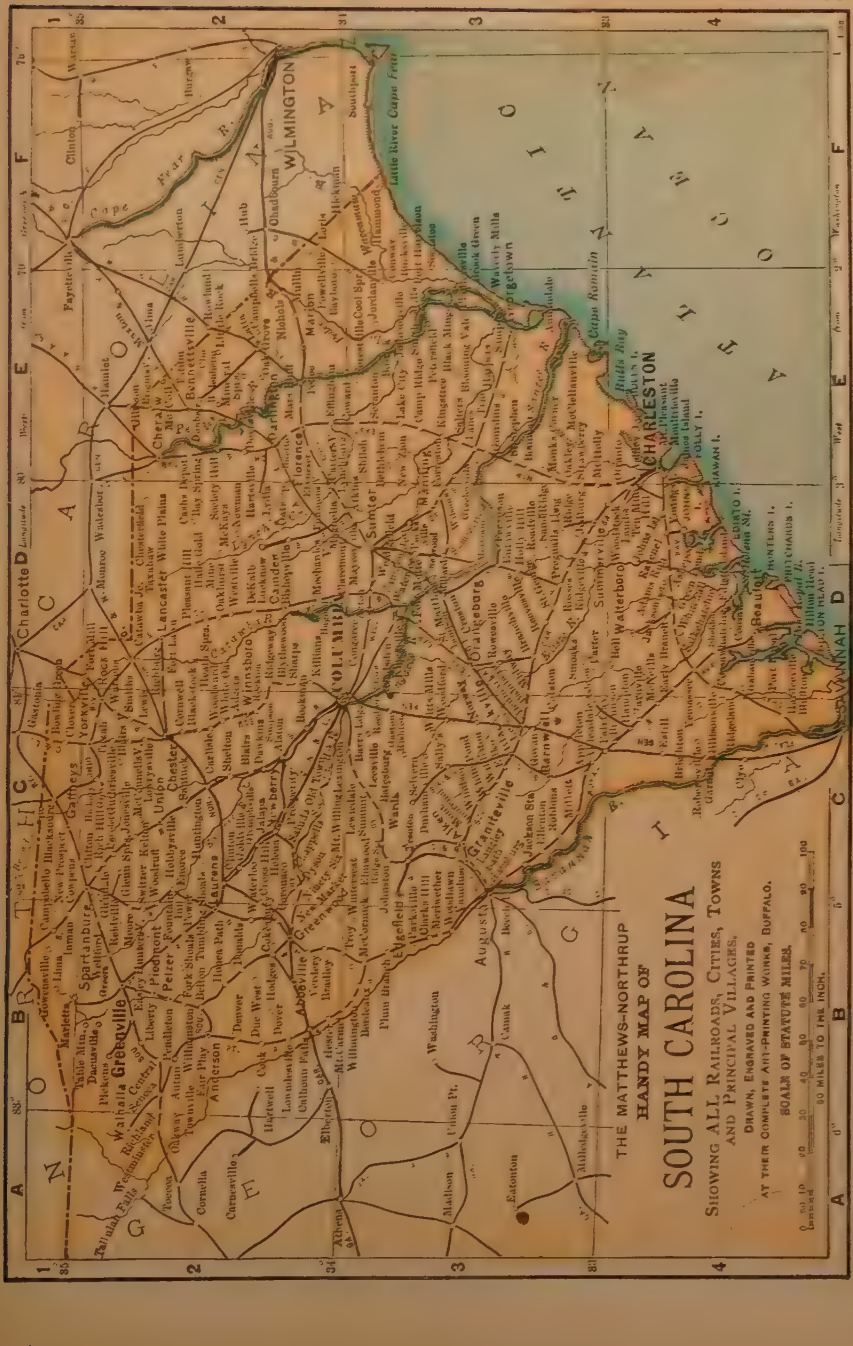
THE MATTHEWS-NORTHRUP
HANDY MAP OF
OHIO
SHOWING ALL RAILROADS, CITIES, TOWNS AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES.
0 10 20 30 40 50 60 70 80 90 100
58 MILES TO THE INCH
LAKE ERIE
MICHIGAN
ONTARIO
KENTUCKY
WEST VIRGINIA
VA.
DETROIT
Toledo
Sandusky
CLEVELAND
Akron
Youngstown
Canton
Steubenville
Zanesville
Newark
COLUMBUS
Springfield
Dayton
Lima
Findlay
Fremont
Tiffin
Fostoria
Mansfield
Galion
Delaware
Lancaster
Circleville
Chillicothe
Washington
Portsmouth
Gallipolis
Ironton
Pomeroy
Marietta
Parkersburg
Cambridge
Bellaire
Wheeling
Mansfield
Mt. Vernon
Philadelphia
Massillon
Ashtabula
Painesville
Elyria
Norwalk
Bucyrus
Kenton
Urbana
Piqua
Hamilton
CINCINNATI
Lancaster
Newark
Zanesville
Cambridge
Marietta
Pt. Pelee
Pt. Pelee I.
Kelleys I.
Lansing
Jackson
Ann Arbor
Adrian
Monroe
Chatham
Rondeau
Leamington
Amherstburg
Windsor
Pontiac
Dundee
Fayette
Montpelier
Defiance
Paulding
Van Wert
Delphos
Lima
Kenton
Bellefontaine
Sidney
Piqua
Urbana
Springfield
Dayton
Xenia
Hamilton
Cincinnati
Portsmouth
Ironton
Gallipolis
Pomeroy
Point Pleasant
Charleston
Huntington
Richardson
Pocahontas
Elkhorn
Hinton
Sewell
Tyree
Glenville
Spencer
Volcano
Harmar
Big Run
Belpre
Mounds
Clarington
Caldwell & Woodsfield
Macksburg
Sharpsburg
Athens
Nelsonville
Logan
Lancaster
Chillicothe
Waverly
Piketon
Lucasville
Sciotoville
Dean
Greenup
Ashland
Catlettsburg
Petersburg
Proctorville
Vanceburg
Maysville
Manchester
Ripley
Georgetown
Winchester
Sardinia
Hillsboro
Lynchburg
Greenfield
Midland
Wilmington
Jeffersonville
Mechanicsburg
Marysville
Delaware
Mt. Gilead
Cardington
Edison
Galion
Mansfield
Wooster
Ashland
Orrville
Massillon
Canton
Alliance
Salem
Lisbon
Columbiana
Ravenna
Warren
Newburg
Hudson
Berea
Grafton
Wellington
Medina
Cuyahoga
Kent
Bucyrus
Carey
Forest
Upper Sandusky
Bluffton
Ottawa
Lima
Spencerville
Wapakoneta
New Bremen
Minster
Versailles
Sidney
Quincy
Bradford
Covington
Troy
Tippecanoe
Arcanum
Manchester
New Paris
Eaton
Camden
Carlisle
Oxford
Middletown
Franklin
Miamisburg
Lebanon
Morrow
Reading
Loveland
Batavia
Blanchester
Winchester
Felicity
Ripley
Manchester
Maysville
Vanceburg
Greenup
Ashland
Catlettsburg
Huntington
Richardson
Kanawha R.
Ohio R.
Scioto R.
Muskingum R.
Kentucky
Longitude West from Greenwich
Longitude West from Washington
A B C D E
1 2 3 4 5 6
84° 83° 82° 81°
7° 6° 5° 4°
42° 41° 40° 39° 38°
1.96

THE MATTHEWS-NORTHRUP
HANDY MAP OF
OREGON
SHOWING ALL RAILROADS, CITIES, TOWNS AND PRINCIPAL VILLAGES.
MADE BY M.-N. CO., BUFFALO, N. Y.
SCALE OF STATUTE MILES
70 MILES TO THE INCH
PACIFIC OCEAN
WASHINGTON
IDAHO
NEVADA
CALIFORNIA
PORTLAND
SALEM
The Dalles
Pendleton
Baker Cy.
La Grande
Astoria
Eugene
Roseburg
Grants Pass
Ashland
Klamath Falls
Lakeview

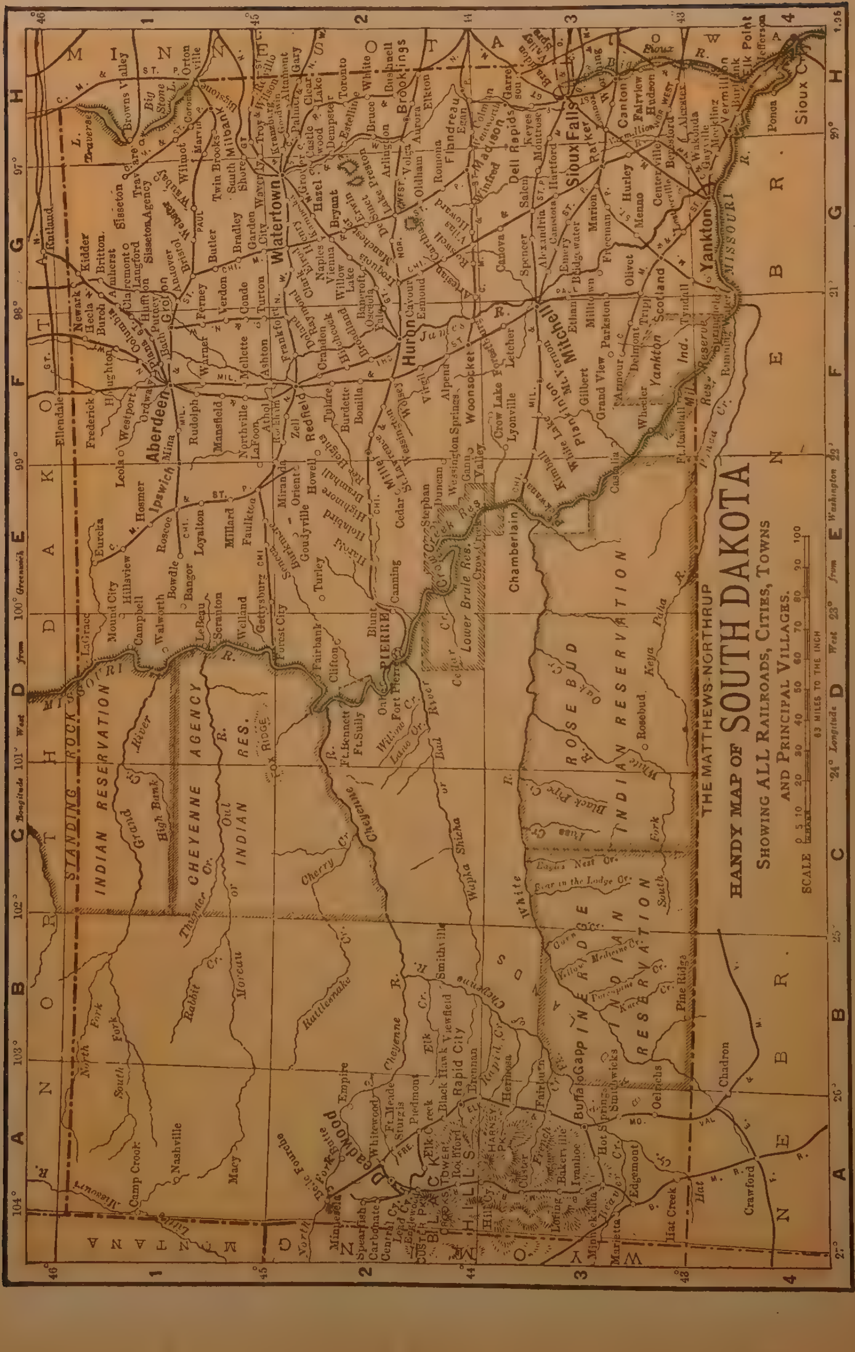
L. ERIE
Erie
Chautauqua L.
NEW YORK
Brocton
Dunkirk
Springville
Dayton
Ellicottville
Belmont
Cuba
Salamanca
Olean
Jamestown
Mayville
Chautauqua
Hornby
Greenfield
Belle Valley
East Greene
Lake Pleasant
Fairview
Girard
McKean
East Springfield
Waterford
Wattsburg
Union Cy.
Elgin
Corry
Bear L.
Sugar Grove
Columbus
Spring Cr.
Chandlers Valley
Russell
Corydon
Warren
Irvine
Garland
Kendall Creek
Bradford
Custer Cy.
Kinzua
Frecks
Eldred
Shinglehouse
Ellisburg
Larabee
Millport
Turtle Pt.
Clara
Hebron
Port Allegany
Coudersport
Mill Village
Millers Sta.
Spartansburg
Riceville
Centreville
Tryonville
Grand Valley
Tidioute
Trunkeyville
Titusville
Pleasantville
W. Hickory
E. Hickory
Tionesta
Nebraska
Marionville
Cherry Grove or Garfield
Balltown
Stoneham
Clarendon
Tiona
Dodge Mills
Wetmore
Sheffield Jc.
Johnsonburg
Byrontown
Parrish
Ridgway
Russelas
Wilcox
Sargent
Buzzard
Hollow
Shippen Sta.
Goodyear
Costello
Sizerville
Emporium
Wharton
Cameron
Sterling Run
Driftwood
Renovo
Mt. Jewett
Kane
Ormsby
Roulette
Portage Creek
Forest House
Wrights
Sweden Valley
Cherry Spring
Hull
Beechwood
Gifford
Hazel
St. Marys
Dagus Mines
Bennezette
Caledonia
Brockport
Crensbaw
Weedville
Tyler
Penfield
Sinnemahoning
Wistar
Birch Island
Potterdale
Karthaus
Pine Glen
Frenchville
Clearfield
Curwensville
Grahamton
Peale
Morrisdale Mines
Bellelonte
Phillipsburg
Martha Fur.
Houtzdale
Port Matilda
Ramey
Tyrone
Warriors Mark
Pennsylvania
Moorestown
Saulsbury
Birmingham
Barree
Petersburg
Alfarsville
Huntingdon
McCeytown
Mc Connellstown
Mapleton Dep.
Mt. Union
Salter
Cassville
Coles Summit
Dudley
Robertsdale
Clear Ridge
Hustontown
Knobsville
Everett
Bedford
Rays Hill
Harrisonville
Mc Connellsburg
Webster Mills
Needmore
Mercersburg
Warfordsburg
Greencastle
Hagerstown
Cumberland
Franklin Mills
Ellsinville
Rainsburg
Purcell
Hyndman
Rockwood
Stewarton
Garrett
Salisbury
Ursina Jc.
Elk Lick
Addison
W. Salisbury Sta.
Manor Lands
Somerset
Berlin
Mt. Healthy
Shanksville
Choice
Buena Vista
Mills
Cleverville
Pine Hill
Westernsdale
William
Schellsburg
Manns
Johnstown
Elton
Rummel
Pavia
Ore Hill
Martinsburg
Henrietta
Woodbury
Saxton
Hollsopple
Alum Bank
Riddlesburg
Hooversville
Spring Hope
Cesna
Tatesville
Cypher
Clearfield
Curwensville
Punxsutawney
Reynoldsville
Sabula
Du Bois
Rockton
Sykesville
Brockwayville
Millstone
Mundorf
Clarion Jc.
Richard
Corsica
Coal Glen
Brookville
Summerville
Fuller
Patton
Sligo
Packers Isl.
Brady
Red Bank
Templeton
Belknap
Dayton
Kittanning
Manorsville
Rosston
Elderton
Leechburg
Shelocta
Shady Plain
Apollo
Crete
Clarksburg
Saltsburg
Tunnelton
Black Lick Sta.
Blairsville
Bolivar
New Alexandria
New Florence
Derry Sta.
Hills View
Ligonier
Davidsville
Jennerstown
Jones Mill
Kuhn
Sipesville
Scottdale
Everson
Broad Ford
Connellsville
Bakersville
Schwebinsville
Dunbar
Lemont
Uniontown
Draketown Jc.
Fairchance
Smithfield
Confluence
Wymps Gap
Somerfield
Morgantown
Masontown
Greensboro
Oak Forest
Hoovers Run
Deep Valley
Mt. Morris
Waynesburg
Jefferson
Brownsville
Redstone Jc.
Carmichaels
Clarksville
Millsboro
Rice Landing
Sycamore
Time
Bristoria
Aleppo
Greenville
Sandy Lake
Franklin
Tylersburg
Clarington
Cooksburg
Shippusville
Clarion
Corsica
Brockway
Punxsutawney
Curwensville
Clearfield
Grampian
Mahaffey
Wallaceton
Osceola Mills
Gazzam
Irvona
Coalport
Ebensburg
Cresson
Loretto
Nipton
Carrolltown
Belsano
Homer Cy
Indiana
Penn Run
Ivestones
Blairsville
Bolivar
Dunbar
Connellsville
Uniontown
Brownsville
Washington
Charleroi
Monongahela
Bellevue
Elizabeth
Sutersville
West Newton
Smithton
Mt. Pleasant
Unity
Greensburg
Pleasant
Beatty
Hickory
Canonsburg
Finleyville
Thomas
W. Middletown
Tylorstown
Homestead
McKeesport
McDonald
Midway
Carnegie
Moon Run
Dinsmore
Bridgeville
Oakmont
Verona
Coal Works
Braddock
Allegheny
PITTSBURG
Sewickley
Wildwood
Tarentum
Natrona
Harmony
Evans City
New Brighton
Rochester
Freedom
Beaver Falls
Ellwood City
Enon Valley
Wampum
Edinburg
Moravia
New Castle
Mahoningtown
Sunbury
E. Mercyria
Clayton
Prospect
Bellevue
Renfrew
Harmony
Saxonburg
Valencia
Butler
Cooperstown
Cooleytown
Cranberry
Lucinda
Kennerdell
Rockland
Knox
Turkeyfoot
Foxburg
Hillsdale
Coalmont
Petrolia
Bruin
Sarver
Barns Cy.
Chicora
Fosters Mills
Adrian
Coylesville
Herman
Kittanning
Plumville
Snicksburg
Ord
Lajose
New Washington
Davis Grant or Cherry Tree Sta.
Tarrs
Blue Flats
Lloydville
Blackwood
Spruce Cr.
Alexandria
Yellow Spr.
Altoona
Gallitzin
Kittanning Pt.
Hollidaysburg
Duncansville
Tyrone
Bellwood
Williamsburg
Martinsburg
Oremina
Roaring Spr.
Pavia
Henrietta
Woodbury
Saxton
Alum Bank
Riddlesburg
Hooversville
Spring Hope
Cesna
Tatesville
Cypher
Clear Ridge
Hustontown
Everett
Bedford
Rays Hill
Harrisonville
Mc Connellsburg
Webster Mills
Needmore
Mercersburg
Warfordsburg
Franklin Mills
Ellsinville
Rainsburg
Purcell
Hyndman
Rockwood
Stewarton
Garrett
Salisbury
Ursina Jc.
Elk Lick
Addison
W. Salisbury Sta.
Manor Lands
Somerset
Berlin
Mt. Healthy
Shanksville
Choice
Buena Vista
Mills
Cleverville
Pine Hill
Westernsdale
William
Schellsburg
Manns
Johnstown
Elton
Rummel
Pavia
Ore Hill
Martinsburg
Henrietta
Woodbury
Saxton
Hollsopple
Alum Bank
Riddlesburg
Hooversville
Spring Hope
Cesna
Tatesville
Cypher
Clear Ridge
Hustontown
Everett
Bedford
Rays Hill
Harrisonville
Mc Connellsburg
Webster Mills
Needmore
Mercersburg
Warfordsburg
Franklin Mills
Ellsinville
Rainsburg
Purcell
Hyndman
Rockwood
Stewarton
Garrett
Salisbury
Ursina Jc.
Elk Lick
Addison
W. Salisbury Sta.
Manor Lands
Somerset
Berlin
Mt. Healthy
Shanksville
Choice
Buena Vista
Mills
Cleverville
Pine Hill
Westernsdale
William
Schellsburg
Manns
Johnstown
Elton
Rummel
Pavia
Ore Hill
Martinsburg
Henrietta
Woodbury
Saxton
Hollsopple
Alum Bank
Riddlesburg
Hooversville
Spring Hope
Cesna
Tatesville
Cypher
Clear Ridge
Hustontown
Everett
Bedford
Rays Hill
Harrisonville
Mc Connellsburg
Webster Mills
Needmore
Mercersburg
Warfordsburg
Franklin Mills
Ellsinville
Rainsburg
Purcell
Hyndman
WEST VIRGINIA
A
B
C
80°
79°
78°
3°
2°
1°
Longitude
West
from
Greenwich
Washington
1
2
3
4
40
41
42

THE MATTHEWS-NORTHRUP
HANDY MAP OF
PENNSYLVANIA
SHOWING ALL RAILROADS, CITIES, TOWNS AND PRINCIPAL VILLAGES.
MADE AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES
0 5 10 20 30 40 50 60 70
99 MILES TO THE INCH
Longitude 76° West from Greenwich 75°
Longitude 1° East from Washington 2°
Hammondsport
Bath
Corning
Elmira
Binghamton
Owego
Addison
Lawrenceville
Gillett
Athens
Milan
Sayre
Litchfield
Bumpville
Great Bend
Hallstead
Silver L.
Susquehanna
Hancock
Lanesboro
Starrucca
Thompson
Equinunk
Callicoon
Tioga
Rutland
East Smithfield
Rome
Potterville
Le Raysville
New Millford
Montrose
Jackson
Alford Sta.
Ararat
Herrick Cen.
Damascus
Charleston
Mansfield
Mainesburg
Ulster
Burlington
Wysox
Standing Stone
Rush
Harford
Hop Bottom
Pleasant Mt.
Uniondale
Milanville
Covington
Troy
Towanda
Monroeton
Springville
Lathrop
Clifford
Bethany
Morris Run
Alba
Wyalusing
Forest Cy
Prompton
Brossburg
Fall Brook
Canton
Barclay
Laceyville
Meshoppen
Nicholson
Carbondale
Honesdale
Arnot
Ogdensburg
Liberty
New Era
Mehoopany
Bardwell
Waymart
White Mills
Hoytville
New Albany
Eldredsville
Elwell
Dushore
Tunkhannock
LaPlume
Dalton
Jermyn
Archibald
Peckville
Olyphant
Dunmore
Hawley
Kimble
Rowlands
Lackawaxen
Oregon Hill
Ralston
Roaring Branch
Mc Intyre
Campbellville
Satterfield
Factoryville
Bodines
Kellyburg
Bernice
Bella Sylva
Lopez
Bowman Cr.
Scranton
Pittston
Matamoras
Milford
Slate Run
Trout Run
Brookside
Jersey Mills
Warrensville
Eagles Mere
Nordmont
Ganoga Lake
Harvey's L.
Dallas
Minooka
Moscow
Blooming Grove
Newfoundland
Cogan
Waterville
Jersey Shore
Williamsport
Montoursville
Sonestown
Central
Fairmont
Kingston
Plymouth
Luzerne
Avoca
Spring Brook
Gouldsboro Sta.
Dingmans Fy.
Union
Chamounix
Unityville
Hughesville
Sprs.
Nanticoke
Wilkesbarre
Drovers Home
Mountain Home
Cresco
S. Williamsport
Montgomery
Muncy
Benton
Shickshinny
Tobyhanna Mills
Pocono
Paradise Valley
Bushkill
Antes Fort
Pine Sta.
Lock Haven
Turbot
Millville
Rohrsburg
Berwick
Blakeslee
Drifton Jc.
Parkside
E. Stroudsburg
Analonunk
Shawnee
Loganton
Watsontown
Orangeville
Willow Sprs.
Milton
Bloomsburg
Rupert
Rock Glen
Weatherly
Ogden
Stroudsburg
Delaware Water Gap
Tylersville
Lewisburg
Danville
Catawissa
Gowen
Oneida
Hazleton
Brodheadsville
Portland
Mifflinburg
Millmont
Aaronsburg
Laurelton
Northumberland
Klines Grove
Snydertown
Shenandoah
E. Mauch Chunk
Saylorsburg
Mauch Chunk
Bangor
Argyle
Millheim
Coburn
Cherry Run
New Berlin
Sunbury
Shamokin
Mt. Carmel
Centralia
Mahanoy
Summit Hill
Tamaqua
Slatington
Chapman
Martins Cr.
Belvidere
Middleburg
Beavertown
Freeburg
Trevorton
Mahanoy
Locust Gap
Ashland
Gordon
St. Clair
Port Carbon
Germans V.
Slatedale
Ironton
Catasauqua
Easton
Phillipsburg
Beaver Sprs.
Mc Clure
Mc Alisterville
Herndon
Williamstown
Tower Cy.
Brookside
Tremont
Swatara
Pottsville
Auburn
Kempton
Freemansburg
S. Easton
Lewistown
Dimmsville
Pillow
Wiconisco
Cressona
Schuylkill Haven
Port Clinton
Hamburg
Allentown
Bethlehem
S. Bethlehem
Riegelsville
Mifflintown
Liverpool
Millerstown
Berrysburg
Kalmia
Pine Grove
Kutztown
Hellertown
Coopersburg
Juniata
Thompsontown
Lykens
Elizabethville
Millersburg
Shoemakersville
Bethel
Leesport
Macungie
Applebachville
Pleasant View
Newport
Halifax
Fredericksburg
Topton
Fleetwood
Alburtis
Quakertown
Hagersville
New Bloomfield
Jonestown
Myerstown
Bernville
Richland
Womelsdorf
Tuckerton
Boyerstown
Barto's
Pennsburg
Telford
New Hope
Waterford
Duncannon
Elliottsburg
Dauphin
HARRISBURG
Lebanon
Reading
Sellersville
Mechanicsville
Landisburg
Marysville
Annville
Palmyra
Hummelstown
Wernersville
Sinking Spr.
Monocacy
Chalfant
Doylestown
Shermansdale
W. Fairview
Schaeffers T.
Birdsboro
Linfield
Skippack
Lansdale
Yardley
Carlisle
New Cumberland
Steelton
Cornwall
Mt. Hope
Denver
Pottstown
Royersford
Hartsville
Greason
Middletown
Springfield
St. Peters
Spring Cy.
Collegeville
Norristown
Bowmansdale
Mechanicsburg
Elizabethtown
Ephratah
Phœnixville
Langhorne
Huntsdale
Lewisberry
Mt. Joy
Manheim
Lititz
Hinkletown
Honey Brook
Bridgeport
Dillsburg
Maytown
Marietta
New Holland
Byers
Mt. Holly Sprs.
York Haven
Manchester
Lancaster
Leaman Place
Downingtown
Pine Grove Fur.
Hunters-Run
Wellsville
Wrightsville
Columbia
Pomeroy
Coatesville
Port Richmond
Shippensburg
York Sprs.
Dover
Millersville
Strasburg
Westchester
PHILADELPHIA
Scotland
Benders V.
New Chester
Thomasville
Safe Harbor
Christiana
Parkesburg
Concordville
Camden
Cash T.
Hunterstown
Spring Forge
Red Line
Windsor
Quarryville
Kennett
Upland
Moores
Chester
Woodbury
Wolf Hill
New Oxford
Hanover Jc.
Fairmount
Avondale
Linwood Sta.
Gettysburg
Porters
Mc Calls Fy.
West Grove
Fairfield
Hanover
Glen Rock
Stewartstown
Oxford
Landenberg
Wilmington
Glassboro
Mc Sherrystown
Shrewsberry
Littlestown
New Freedom
Delta
Peach Bottom
Blue Ridge Summit
Salem
Delaware R.
Susquehanna R.
Delaware R.
Erie
Trenton
Longitude 1° East from Washington 2°
1.96


THE MATTHEWS-NORTHRUP
HANDY MAP OF
RHODE ISLAND
SHOWING ALL RAILROADS, CITIES, TOWNS AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED
AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES.
8 MILES TO THE INCH.
PROVIDENCE
Pawtucket
Woonsocket
Central Falls
Olneyville
East Providence
Cranston
Warwick
Bristol
East Greenwich
Kingston
NEWPORT
Westerly
Block Island
Watch Hill Pt.
Pt. Judith
Sachuest Pt.
Sakonnet Pt.
COGGESHALL LEDGE
Brentons Reef
Narragansett Pier
Charlestown Inlet
SQUIDS LEDGE
Sandy Pt.
BLOCK ISLAND
(NEW SHOREHAM)
Block Island
New Shoreham Town Hall
ATLANTIC OCEAN
CONNECTICUT
MASSACHUSETTS
RHODE ISLAND
Long. 71.20' West from Greenwich 71.10' E
Longitude East from Washington 5.43' E

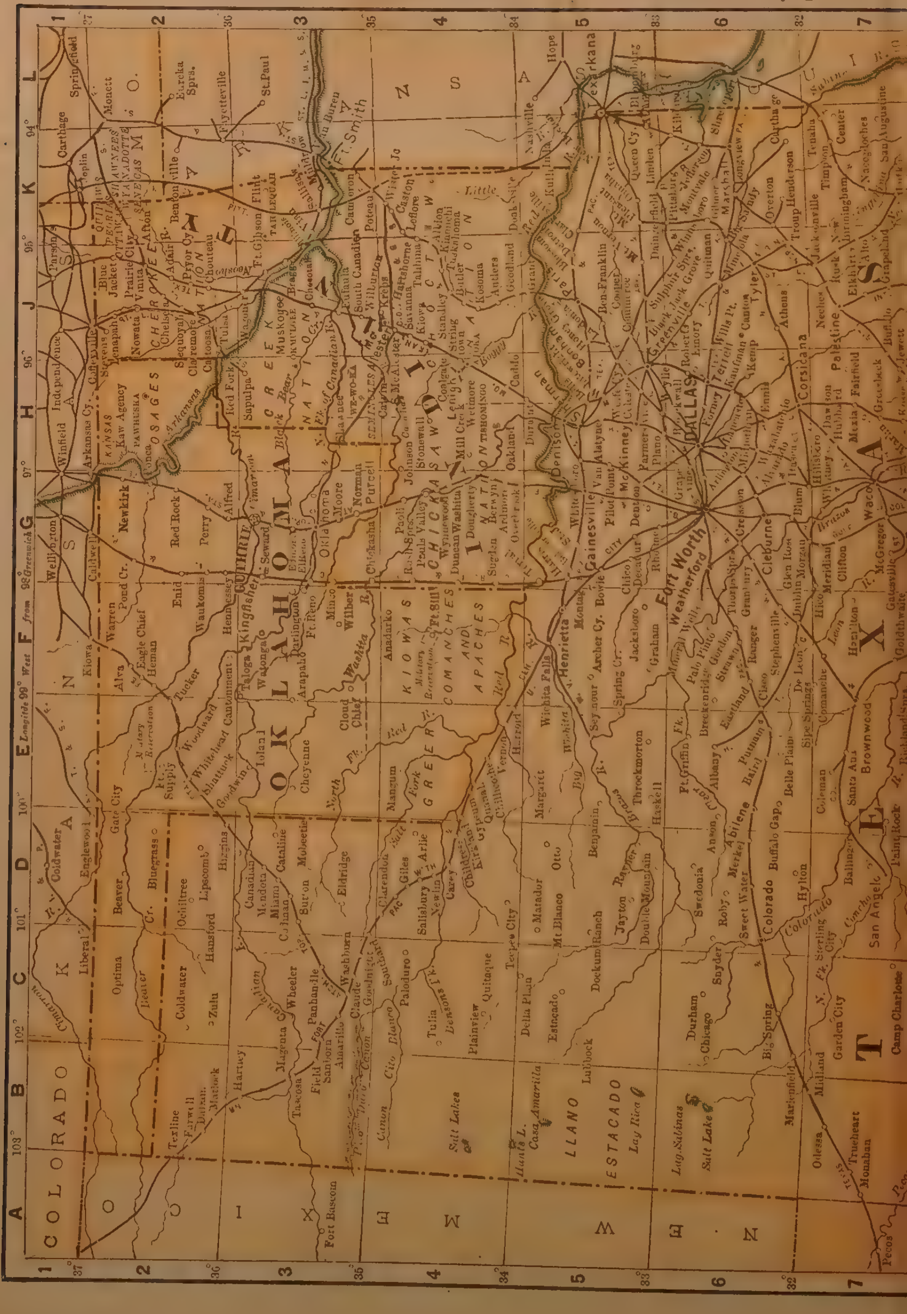

THE MATTHEWS-NORTHRUP
HANDY MAP OF
SOUTH CAROLINA
SHOWING ALL RAILROADS, CITIES, TOWNS
AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED
AT THEIR COMPLETE ART-PRINTING WORKS, BUFFALO.
SCALE OF STATUTE MILES.
60 MILES TO THE INCH.
WILMINGTON
CHARLESTON
COLUMBIA
SAVANNAH
Augusta
Greenville
Spartanburg
Anderson
Florence
Sumter
Orangeburg
Beaufort
Cape Fear
Cape Romain
Charlotte

 For TENNESSEE see page 477



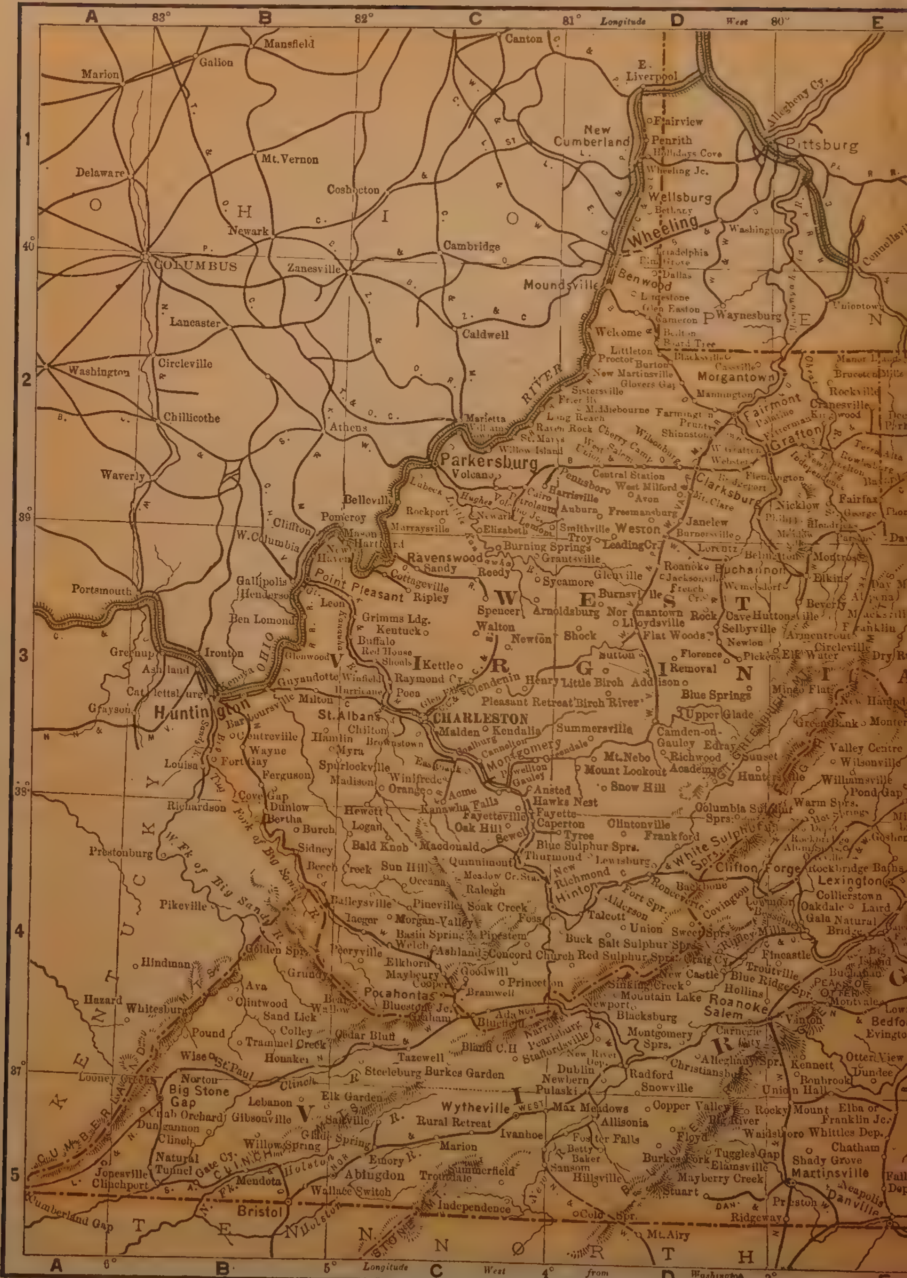
For TEXAS see next page

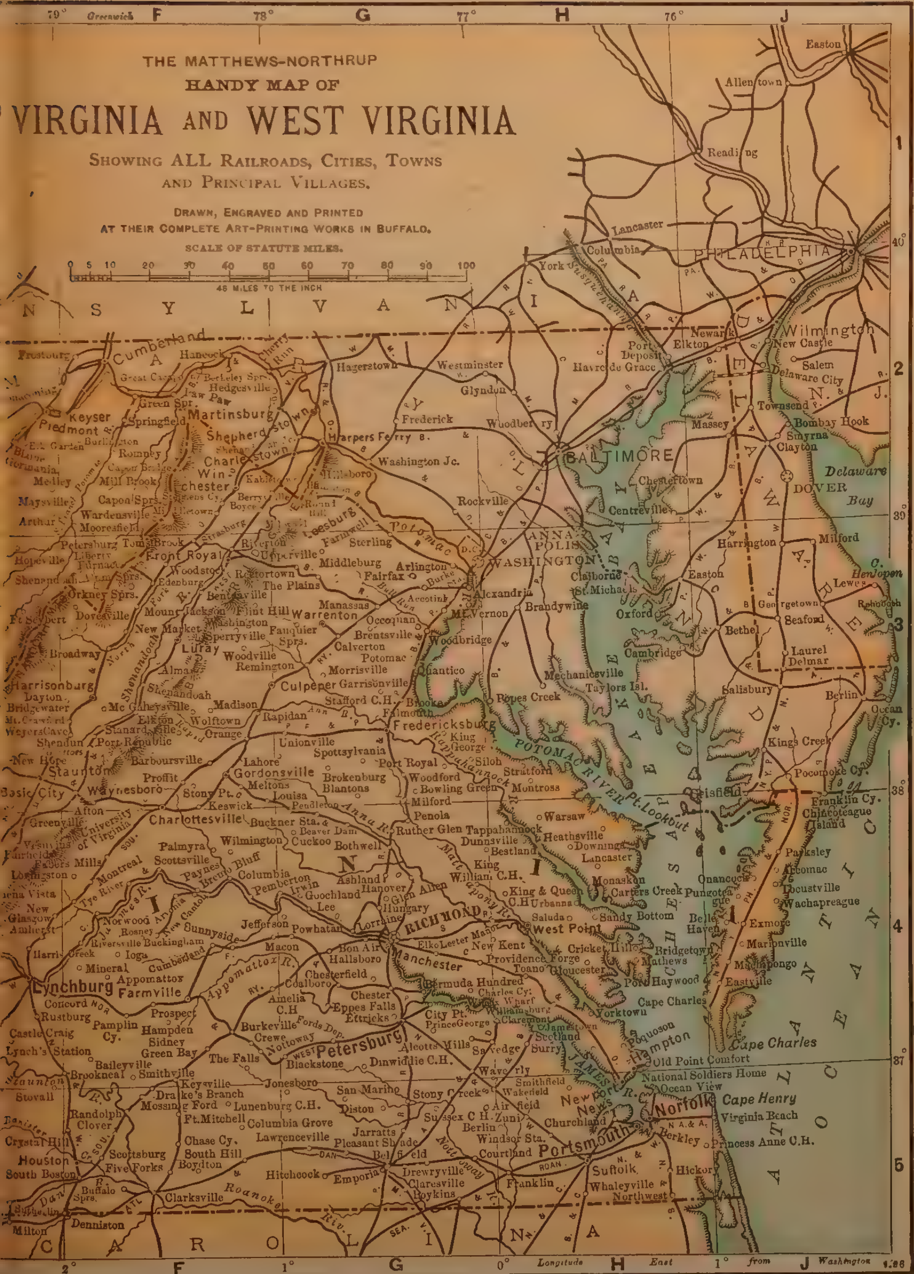
For TENNESSEE see page 476



THE MATTHEWS-NORTHRUP
HANDY MAP OF
TEXAS,
OKLAHOMA AND
INDIAN TERRITORY
SHOWING ALL RAILROADS, CITIES, TOWNS
AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED
AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES.
22 MILES TO THE INCH
WESTERN
PART OF
TEXAS
Same Scale as main Map
GULF OF MEXICO
MEXICO
GALVESTON
Houston
Beaumont
Orange
Bryan
Brenham
Austin
San Antonio
Victoria
Corpus Christi
Laredo
Eagle Pass
Del Rio
Brownsville
Matamoros
Rio Grande City
Hidalgo
Santa Maria
Reynosa
Camargo
Roma
Carrizo
Cuatro Ciénegas
Ciudad Porfirio Diaz
Ciudad Juarez
El Paso
Fort Davis
Alpine
Marathon
Presidio
Shafter
Valentine
Haskell
Torbert
Fort Hancock
Sierra Blanca
Alamoore
Van Horn
Kent
Toyah
Pecos
Rio Grande
Long. West 105° from Greenwich 104
NEW MEXICO
Longitude West 20° from Washington
Longitude West 28° from Washington
Longitude West 29° from Washington

 For WISCONSIN see page 482

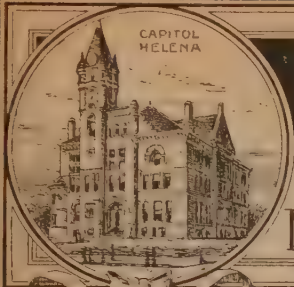



THE MATTHEWS-NORTHRUP
HANDY MAP OF
VIRGINIA AND WEST VIRGINIA
SHOWING ALL RAILROADS, CITIES, TOWNS
AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED
AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
SCALE OF STATUTE MILES.
0 5 10 20 30 40 50 60 70 80 90 100
45 MILES TO THE INCH
79° Greenwich F 78° G 77° H 76° J
2° F 1° G 0° Longitude H East 1° from J Washington
PHILADELPHIA
BALTIMORE
WASHINGTON
ANNAPOLIS
RICHMOND
Petersburg
Norfolk
Portsmouth
Lynchburg
Charlottesville
Fredericksburg
Alexandria
Wilmington
DOVER
Delaware Bay
POTOMAC RIVER
Cape Charles
Cape Henry
Harrisonburg
Staunton
Cumberland
Martinsburg
Harpers Ferry
Reading
Lancaster
York
Allentown
Easton
Hagerstown
Frederick
Winchester
Culpeper
Gordonsville
Hampton
Old Point Comfort
Newport News
Yorktown
Suffolk
Salisbury
Farmville
Danville

THE MATTHEWS-NORTHRUP
HANDY MAP OF
VERMONT AND NEW HAMPSHIRE
SHOWING ALL RAILROADS, CITIES, TOWNS AND PRINCIPAL VILLAGES.
DRAWN, ENGRAVED AND PRINTED AT THEIR COMPLETE ART-PRINTING WORKS IN BUFFALO.
10 5 0 10 20 30
32 MILES TO THE INCH.
73° Longitude 72°30' West from 72° 71°30' Greenwich 71°
4° Longitude 4°30' East 5° from 5°30' Washington 6°
1.96

THE MATTHEWS-NORTHRUP
HANDY MAP OF
WASHINGTON
SHOWING ALL RAILROADS, CITIES, TOWNS AND PRINCIPAL VILLAGES.
SCALE OF STATUTE MILES.
62 MILES TO THE INCH
BRITISH COLUMBIA
IDAHO
OREGON
PACIFIC OCEAN

For WISCONSIN see page 482



MONTANA

THE BONANZA STATE

HISTORY.

The discoverer of the Rocky Mountains was the Chevalier de la Vérendrye, a young Canadian officer. In 1742-3, with his brother and two French-Canadians, he marched from Fort la Reine, on the Assiniboine, up Mouse River and across to the Mandan villages, whence they ascended the Missouri to the Gate of the Mountains, in company with a great Sioux war party, and established a monument bearing the arms of France, in whose name they claimed these lonely deserts. Over sixty years passed before the exploring party of Lewis and Clarke traversed Montana, ascending the Missouri, examining the Great Falls, and then crossing the Lolo Pass into Idaho. The Missouri Fur Company was founded in 1808 by Clarke, Labadie, Mesnard, Lisa and the Chouteaus. The Rocky-Mountain Fur Company commenced operations in 1822, and in 1834 united with the American Fur Company. For the first half-century all the goods used on the upper Missouri were cordelled, or dragged by human labor, all the long 2,000 miles or more from St. Louis. In 1831 Chouteau had the steamboat *Yellowstone* built at Pittsburgh, and she ascended to Fort Pierre and (in 1832) Fort Union. In 1860 the *Chippewa* went up to Fort Benton; and in 1865 the *Tom Stevens* reached Portage Creek, five miles below the Great Falls. Fort Union was built by Kenneth McKenzie and fifty men of the American Fur Company, in 1829, as a centre of trade with the Assiniboines. Sublette and Campbell founded a post on the site of Fort Buford, in 1833. Fort Benton was built by Alex. Culbertson, of the American Fur Company, in 1846, and became United-States property in 1869. Fort Buford was erected in 1866, near Fort Union. In 1861 this vast territory was occupied by wandering Indians, and the only civilized dwellers were fur-traders and the priests at the lonely Northern missions. The missionary enterprises of Father de Smet and other devoted priests began here about half a cen-

STATISTICS.

Settled at	Fort Union.
Settled in	1829
Founded by	Fur Traders.
Admitted to the U. S.,	1889
Population in 1870,	20,595
In 1880,	39,159
White,	35,385
Colored,	3,774
American-born,	27,638
Foreign-born,	11,521
Males,	28,177
Females,	10,982
In 1890 (U. S. Census),	132,159
Population to the square mile,	0.3
Voting Population,	21,544
Net State Debt,	None.
Assessed Property (1890),	$106,000,000
Area (square miles),	146,080
U. S. Representatives (1893),	1
Militia (Disciplined),	677
Counties,	17
Post-offices,	393
Railroads (miles),	2,181
Manufactures (yearly),	$1,835,867
Operatives,	578
Yearly Wages,	$318,759
Farm Land (in acres),	405,683
Farm-Land Values,	$3,234,504
Farm Products (yearly)	$2,024,923
Public Schools, Average Daily Attendance,	8,600
Newspapers,	66
Latitude,	44°6′ to 49° N.
Longitude,	104° to 116° W.
Temperature,	—63° to 111°
Mean Temperature (Helena),	43°

TEN CHIEF CITIES AND THEIR POPULATIONS. (Census of 1890.)

Helena,	13,834
Butte,	10,723
Great Falls,	3,979
Anaconda,	3,975
Missoula,	3,426
Livingston,	2,850
Bozeman,	2,143
Walkerville,	1,743
Marysville,	1,489
Deer-Lodge City,	1,463

tury ago, during the era of the fur-traders. The gold-discoveries of 1861, and the rich treasures of placer-gold found in Alder Gulch in 1863, drew to Montana thousands of adventurers from all over the Union. The gold-dust in Alder Gulch yielded $25,000,000 in a few months. It has been jocularly stated that Montana was first settled by the left wing of "Pap" Price's Confederate army, shattered at the battle of Pea Ridge, Missouri, and not venturing to pause in their flight until safe in the shelter of the Rocky Mountains. The van-guard of colonization did indeed come from Missouri, and one of the chief towns of the Territory was named for Jefferson Davis's daughter. Before long the mining-camps were the prey of their worst elements, and murder and robbery were events of hourly occurrence; and then the citizens formed powerful vigilance committees, and rid the Territory of its refuse population, banishing many and putting others to death. The most prominent man in Territorial days was Benjamin F. Potts, who won the stars of a general in the civil war, and then became an Ohio State Senator. He served as governor of Montana from 1870 to 1883, with signal ability and success. He died in 1887, and is buried at Helena.

MONTANA COWBOYS.

The Indian wars and the advance of the pioneers are recorded in Leeson's great 1400-page *History of Montana*. The First Montana Cavalry took the field in 1867; and after the disastrous battle with the Nez Perces at Big Hole, ten years later, twelve companies of Territorial militia were mustered to defend the settlements. Large National forces, led by the best officers of the army, have campaigned among these stern valleys for many years, facing a powerful and wily foe. The most direful tragedy in their annals occurred on the Rosebud River, in June, 1876, when Gen. Custer advanced against the great Sioux village, at the head of the 7th United-States Cavalry. Taking five troops to make an attack on one side, he sent seven troops under Reno and Benteen to charge up the valley. The latter force was repelled and besieged on the bluffs, and Custer's detachment, enveloped by thousands of Indians, was annihilated to the last man. A National Cemetery now occupies a part of the battle-ground. The Sioux and other tribes kept up their pitiless warfare until Gen. Miles with a small force inflicted upon them a series of defeats, in the campaign of 1876 7. Since the era of railway-building set in, line after line of rails has been laid across Montana, followed by hundreds of towns, until the lone land of 1860 has developed into a busy State.

MISSION MOUNTAIN, IN THE FLATHEAD COUNTRY.

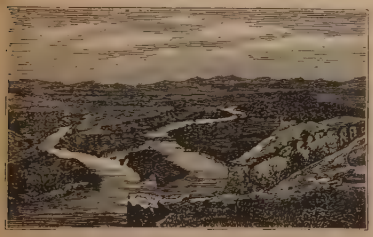
The Name Montana means "of or belonging to the mountains," and is of Latin origin. The Indian name for the country, *Tô Yabe-Shock' up*, had the same meaning, *The Country of the Mountains*. The pet name, THE BONANZA STATE, on account of its many bonanza mines, was given by Judge John Wasson Eddy, and has been very generally accepted.

The Arms of Montana show a plow, with a miner's pick and shovel, a buffalo retreating, and in the background a brilliant sun setting behind the Rocky Mountains. The motto is ORO Y PLATA, Spanish words signifying "Gold and Silver."

The Governors of Montana have been: *Territorial:* Sydney Edgerton, 1864–5; Thos. Francis Meagher (acting), 1865–6; Green Clay Smith, 1866–9; Jas. M. Ashley, 1869–70; Benj. F. Potts, 1870–83; John Schuyler Crosby, 1883–4; B. Platt Carpenter, 1884–5; Samuel T. Hauser, 1885 7; Preston H. Leslie, 1887–9; and Benj. F. White, 1889. The first State governor was Joseph K. Toole, 1889–93.

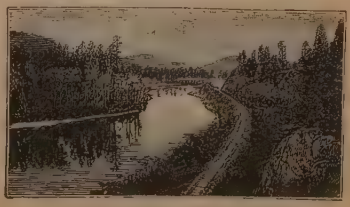
GREAT FALLS: WAGON-BRIDGE.

Descriptive.—Montana is one of the far Northwestern States, a fifth of its area lying beyond the Rocky Mountains, on the high plateau between the Continental Divide and the Bitter-Root Range. On the north are the Canadian provinces of Assiniboia, Alberta and British Columbia; on the east, the Dakotas; on the south, Wyoming; and on the southwest and west, Idaho. The northern boundary was surveyed in 1872-5, by American and British officers, and marked with iron pillars. Montana is in two diverse sections, the eastern two thirds consisting of rolling plains, clothed mainly with sage-brush and bunch-grass, and ascending westward from a height of 2,000 to 4,000 feet. The western third is the mountain-region, covering 50,000 square miles of ranges, from 8,000 to 11,000 feet high, with lofty valleys and passes. In the south the mountains are cut by low notches; but in the north they stand like unbroken Titanic walls. The elevation is so much less than that of Colorado and Wyoming that the climate is favorably affected thereby, counterbalancing the temperature natural to its higher latitude. The area of Montana exceeds that of the British islands, or of New England, New York, New Jersey, Delaware and Maryland combined. Its northern frontier equals in length the distance from Boston to Richmond, and is as far from its southern extremity as Long-Island Sound is from Montreal. Its area includes 30,000,000 acres of farm-lands, 38,000,000 of grazing lands, and 26,000,000 of woods and mountains. There are forests of pine and cedar, along the mountains and down the great valleys. Tongue River has valuable growths of black ash; and Hell-Gate River flows through noble forests of yellow pine. A profitable lumbering business has been developed, and saw-mills occupy many of the water-powers. The fertile valleys of the mountains may be irrigated and cultivated with success. The farm-products bring good prices, in the great mining-camps and cities of Montana. The broad bench-lands and valleys of the east can be cultivated only by the aid of extensive irrigation-canals, and the rivers are adequate to water only a part of the agricultural lands of this vast parched area. Private enterprise has built costly canals in many localities. The Gallatin Canal, twenty feet wide and four feet deep, takes water from the West Gallatin River, where it issues from the mountains, and refreshes the valley above Bozeman for twenty-two miles. The Sun-River Canals are over 100 miles long, with immense reservoirs. The Tongue-River Canal is twenty-nine miles long, five feet deep and fourteen feet wide on top. The Billings Ditch is thirty miles long and six feet deep.

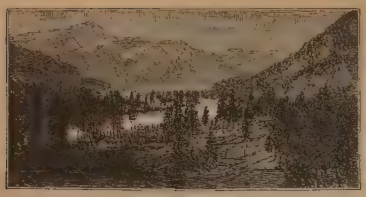


THE THREE FORKS OF THE MISSOURI.

More than half of eastern Montana is in dry rolling prairies of immense extent, without trees or farming capabilities. Near the mountains they bear a luxuriant growth of nutritious bunch-grass, but as they fall away toward the east the arid soil is monopolized by sage-brush and greasewood. The Bad Lands (*Mauvaises Terres*) of the Lower Yellowstone are a labyrinth of singular forms, with a soft and disintegrating clayey rock, in whose powdery soil animals sink to their fetlocks. When it is wet this substance becomes a sticky mud, of perilous depth and tenacity. Everywhere are found in this tangle of ravines and natural architecture the bones of myriads of extinct animals, a weird mausoleum of unknown forms. Gen. Sully aptly characterized this region as "hell, with the fires out."



CLARKE'S FORK: HORSE PLAINS.



DEER PARK.

Near the headwaters of the Missouri, Jefferson, Madison, Sun, Téton and Marias Rivers extend broad areas of arable land. The Gallatin Valley, 35 by twelve miles in area, has a mild and pleasant climate, and is already partly cultivated, with several prosperous towns. It has been called "The Egypt of Montana," on account of its rich soil and plenteous farm-products, exceeding $1,000,000 a year, in cereals, hay, potatoes, fruits, and live-stock. The Judith Basin is a tract of 1,500 square miles of grassy prairie, running southward from the Missouri to Judith Gap.

The country north of the Missouri is an immense rolling prairie, broken by the forests of the Little Rocky and Bear-Paw Mountains and the Sweet-Grass Hills. This tract of 18,000,000 acres of virgin soil, formerly reserved for the Gros-Ventre, Piegan and River-Crow Indians, was thrown open for settlement, by the President's proclamation, in May, 1888. The Sweet-Grass Hills (or Three Buttes), 72 miles from Fort Assiniboine, are above 8,000 feet high, and abound in timber and coal, gold and silver, copper and lead. The Kalispel country is a wedge-shaped region nearly as large as Connecticut, west of the Rocky Mountains, and including Flathead Lake and the homes of the Flathead and Pend 'Oreilles tribes. Very few whites have settled in this great lonely land.

The main range of the Rocky Mountains forms the southwestern frontier, from the head of the Madison River to Missoula County, and then bends northeast into the State, crossing it for 300 miles, east of Deer Lodge and Flathead Lake, and then entering Canada. The great Bitter-Root Range derives its name from a plant with rose-colored blossoms, whose pipestem-like roots are dug up by the Indian squaws for winter food. The chief summits of the range are Lolo Peak and St.-Mary's Peak. The Bitter-Root Valley, on the east, is 90 miles long and seven miles wide, enwalled by noble mountains, and abounding in farms and corn-fields. The Snowy Mountains, near the bend of the Yellowstone; the Wolf and Powder-River Ranges, in the southeast; the Pryor Mountains, west of the Big-Horn; the Crazy, Big-Belt, Little-Belt, Highwood, Judith and Bull Mountains, between the Yellowstone and Missouri; and the Kootenai and Cabinet Ranges, in the far northwest, nobly diversify the face of the country, lifting their purple, blue and gray summits over the long levels of the Plains, and crowned for many months with dazzling snows.

BEAVER-HEAD ROCK.

Two of the greatest rivers in America take their rise here. Clarke's Fork of the Columbia is formed by the confluence of the Flathead and the Missoula, and runs northwest around the Bitter-Root Range into Idaho, sweeping through narrow wooded glens. The Missouri River is formed at Three Forks, in the Gallatin Valley, by the confluence of the Jefferson, Madison and Gallatin Rivers. The Jefferson is the chief stream, 250 miles long. The Missouri has 1,300 miles of its course in Montana. At Three Forks, the stream may be forded, at low water, being but 500 feet wide; and it is navigable from here to the Gulf of Mexico, except for the Great Falls. Nearly to Fort Benton (250 miles) it traverses a valley 75 miles wide. Its chief tributaries are the Sun, Téton and Marias, from the Rockies; the Milk, traversing Alberta and Assiniboia; and the Musselshell, from the south. The two last are nearly dry at their mouths in autumn. The Gate of the Moun-

ROCKY-MOUNTAIN SCENERY.

PRICKLY-PEAR CANON.

tains is the cañon traversed by the Missouri 18 miles east of Helena, cutting for five miles through a pinnacled and castellated gorge of grayish white rock from 600 to 1,000 feet deep. This sombre ravine was named by Lewis and Clarke. Its walls are precipitous most of the way, with no footing between the water and the mountain-side. The river is narrowed to 300 feet, with a depth of over ten feet; and its placid surface reflects the cliffs and forests like a vast mirror. Ten miles below the Gate, the Missouri traverses Atlantic Cañon, at whose end rise the rocky tusks of Bear's-Tooth Mountain, 2,500 feet above the river, and one of the most famous northern landmarks. The steamboat *Rose of Helena* navigates these wild gorges, for pleasure travel. Forty miles below the cañon is the Long Pool, famous for the mysterious cannon-like booming which from time to time reverberates over its placid surface. The Great Falls of the Missouri begin three miles below the mouth of the Sun River, and descend 450 feet in 15 miles. The Black-Eagle Falls, of 26 feet, come first, with their lonely and historic islet. Four miles below are the Rainbow Falls, where the Missouri plunges 40 feet, over a curving rim of rock 900 feet long, with vast roaring, mist-clouds and rainbows. Just below comes the Crooked (or Horse-Shoe) Fall, of 19 feet; and nearer Rainbow Falls the vast crystal river of Giant Spring enters the Missouri. Near by are the works of the Montana Smelter Company. Six miles below this point are the Great Falls, where the Missouri plunges down 87 feet, vertically on one side, and by a series of steps on the other, surrounded by cliffs, ravines and red boulders. The roaring of this cataract is heard for ten miles, along the grand grassy plateau which environs the stream. For five miles below the Missouri is vexed with rapids, and then come the stiller waters, which may be navigated to Fort Benton (35 miles) and the Gulf of Mexico, over 4,000 miles distant. Below Fort Benton the river flows first over a gravelly bed and then between high and arid bluffs, and only light-draught steamboats can pass after July. There are several steamboats engaged in the Missouri commerce, but the freightage has fallen off greatly since the railroads reached the valleys. The navigation of the Missouri above the Great Falls was initiated by the *Little Phil* in 1883, and is of value in carrying farm-produce to Great Falls.

The Yellowstone River rises in the Yellowstone National Park, in Wyoming, and traverses the entire length of Montana, for 850 miles, receiving the Big-Horn, Rosebud, Tongue, Powder, and other rivers. It is navigable to the Crow-Agency landing, and even to the present site of Billings, by small steamboats; and Mackinaw boats may ascend 100 miles further. Since the railroad entered the valley, in 1881, steamboat navigation has been practically suspended. The first steamboats up the Yellowstone were the *Alone;* the *Cutler*, in 1869; and the *Key West*, the latter ascending 245 miles, to the Powder River. In 1875 Gen. Forsythe took the *Josephine* 418 miles up the Yellowstone, to Huntly, near Billings. In 1877 24 steamers plied on this lonely stream. Steamers have ascended the Big-Horn to Fort Custer. The rivers abound in trout and salmon-trout, grayling, garfish, pike, suckers and catfish.

GATE OF THE MOUNTAINS.

Flathead Lake, 28 by ten miles, is crossed by a line of green islands, and hemmed between tall cliffs and emerald meadows, with a village of Indian farmers at its foot, where the great river rushes out. Steamboats navigate the lake, and run up the Flathead River. Forty miles south is St.-Ignatius

Mission, near the beautiful Two-Sisters Cascades. Far north of Flathead Lake, the trackless Boundary Mountains are reflected in the Kintla and other lakes. There are many beautiful mountain-lakes in Deer-Lodge County, and in the Tobacco-Root Range, and elsewhere.

GREAT FALLS OF MISSOURI RIVER.

The State abounds in scenic attractions, including the great cavern 20 miles west of Dillon, lined with shining crystals; the Beaver-Head Rock and Twin Falls; Silver Springs, in the Ruby Valley; the high-walled Prickly-Pear and Hell-Gate Cañons, and many other gorges of romantic beauty; and the secluded Kalispel country. A small segment of the Yellowstone National Park lies within Montana. The mineral springs of Montana are numbered by hundreds, and some of them have attained fame as health-resorts. The Warm Springs are 40 in number, containing iron, soda and magnesia, and with a temperature of from 115° to 170°. Here rises the wigwam-shaped Geyser cone, with its perpetual smoke ascending like a council-fire, the vicinity of which became the grazing ground of white-tailed deer, and was called by the Indians the Lodge of White-Tailed Deer, and the whites called it Deer-Lodge Valley.

WHITE-ROCK CANON.

It is a matter of surprise to find in a commonwealth so recently rescued from the wilderness and the savage, one of the most perfectly appointed and elegant health-resorts in the Union, visited each season by thousands of wealthy and fashionable families. This is the Hotel Broadwater, reached from Helena by electric cars, traversing the finest residence-quarter of the city, and also by the Great Northern Railway. The grounds are prettily laid out, and command grand views of the mountains, whose crisp and electric air flows in a life-giving current over all. The adjacent Hot Springs flow at a temperature of 160°, and have high medicinal virtue, the water being used in a variety of sumptuous baths in the hotel. The fine Moorish building of the Natatorium is the largest bath-house in the world, with a plunge-bath 100 by 320 feet in area, the hot mineral water rushing into it over an artificial cascade of 40 feet, amid tropical flowers and the sound of music. This famous resort was the site of a little pioneer road-house. In 1887, it was bought, together with all the land and water in the neighborhood, by Col. C. A. Broadwater, an old Montanian, who has since spent over $500,000 in transforming it to an unrivalled health-resort. The hotel is heated by steam and lighted by electricity, and sumptuously furnished; while the surrounding gardens and ponds, and the views of the far and near mountains, are of wonderful interest. The enterprise of Col. Broadwater, conspicuous in several important enterprises of Helena, has raised up at this point a sanitarium which is destined to rival the Hot Springs of Arkansas, in popularity and in medicinal benefit to the suffering.

HELENA: HOTEL BROADWATER AND NATATORIUM.

The White-Sulphur Springs have hotels, cottages and bath-houses. Puller's Hot Springs, in Ruby Valley, are tinctured with sulphur and iron. Hunter's Hot Springs, and Lewis Hot Springs, and the Boulder, Pipestone and Clancy Springs, are well-known health-resorts. Alhambra Warm Springs are rich in medicinal virtue. All these springs have hotels and cottages near them, for the accommodation of visitors.

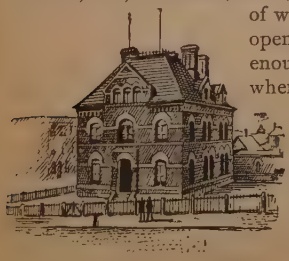
SILVER-BOW CANON.

The Climates of Montana are of great variety, with a mean annual temperature of from 40° to 50°, rapid and violent variations, the possibility of frost in every month, and yet a milder general aspect than this high latitude would indicate. The rainfall in most of the State is but from ten to 16 inches yearly; and on the Plains, and along the Jefferson, Madison, Gallatin and Yellowstone Rivers farming must be accompanied by irrigation. The rainy season extends from April until midsummer. In the northwestern corner all is different. This section, including Missoula and Deer-Lodge Counties, is on the Pacific slope, west of the Rocky Mountains, and has 25 inches of rain yearly, with a mild temperature from the Chinook winds. The Missoula, Bitter-Root, Kootenai and Flathead Valleys can be cultivated without irrigation, and the mountains and glens are covered with valuable forests of large pines, firs and cedars. The mean annual temperature of Fort Benton is 4° warmer than that of Chicago. Helena has the unusual number of 294 fair days in each year. The temperature of the Bitter-Root Valley is the same as that of Philadelphia. Deer Lodge is on the latitude of Venice; the northern frontier on that of Paris. The snow-falls of Wyoming and Colorado exceed that of Montana, whose altitude is less than theirs. The Chinook winds, from the great warm current of Japan, are a remarkable feature of the Montana winters, bringing a soft spring temperature, melting the snows like a furnace-blast, and extending their balmy influences for 300 miles east of the Divide. The northwest winds that occasionally sweep down from the Canadian Rocky Mountains are bitterly cold, but endurable on account of their dryness.

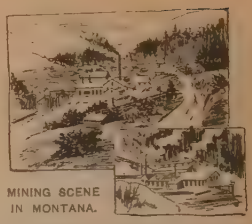
HELENA: THE HIGH SCHOOL.

Among the animals here found are mule deer, or black-tailed deer, elk, moose, antelope, beaver, mountain sheep and Rocky-Mountain goats, grizzly and black bears, mountain lions, wild cats, lynxes and gray wolves. In 1870 8,000,000 buffaloes roamed the Western Plains. In 1880 millions of buffalo were wantonly slaughtered in this region, and in 1884 the last great herd of buffalo, numbering 75,000 head, wintered in the Bad Lands, and was well-nigh exterminated by red and white hunters. It may be doubted if there is now even a small herd left in the State.

Agriculture has not yet reached a high development. Wheat of a superior grade, oats and corn, are raised in the valleys, and small quantities of vegetables and fruits. The stock-raising interest has assumed great prominence in Montana, whose vast plains afford pasturage for millions of domestic animals, needing little shelter or feeding in winter. The occasional severe cold and deep snows have entailed heavy losses upon the cattle-men, but improved methods are averting much of this destruction. The State contains 1,500,000 head of cattle, 200,000 horses, and 1,300,000 sheep. The latter produce yearly 10,000,000 pounds of wool, and $2,000,000 worth of mutton. The flocks run on open ranges, guarded by shepherds and dogs, finding bunch-grass enough for food in winter, except during the severest weather, when they are folded and fed on hay. There are a number of large horse-ranches, also, where Kentucky trotting stallions and English and Norman draft stallions are used for breeding with native mares. Thousands of two-year-old steers from Texas and New Mexico are bought by the Montana stockmen, and kept on the ranges for two years, and then sold for beef. They attain a much greater weight in Montana than they ever can on the southwestern plains. Over


HELENA: THE U.-S. ASSAY OFFICE

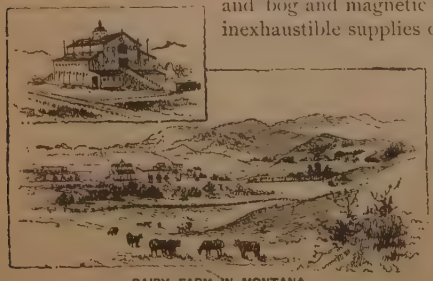
100,000 head are sent eastward yearly, besides the great number devoted to home-consumption. The local production of hay amounts to 240,000 tons, and enables the herders to winter-feed their cattle, when necessary. The cow-punchers of the plains are a large body of active and fearless young men, for a long time a characteristic feature of Western civilization.


MINING SCENE IN MONTANA.

Mining is the foremost industry of Montana, which has already added $400,000,000 to the Nation's wealth from this resource. Nearly one third of the gold, silver, copper and lead mined in the United States comes from Montana, which surpasses in its product Colorado, California and Nevada alike. A small quantity of gold was found in the Deer-Lodge Valley in 1852, and richer deposits were discovered on Little Prickly-Pear Creek, in 1861, and thence the country became settled, miners pouring in from all parts of the world. During ten years $135,000,000 in gold were taken out; but little was done in mining until after 1860, when Hauser, Bozeman, the Stuarts, and others developed the lodes of southwestern Montana. Bannock began to produce in 1862. The Alder-Gulch (Virginia City) district was opened in 1863, and has yielded $50,000,000. Last-Chance Gulch (Helena), opened in 1864, has produced $15,000,000. Quartz-mining was begun after 1870, and now vast and costly plants, with the most efficient machinery, are perpetually at work. The smelters at Helena, Great Falls and Castle alone cost $10,000,000. In 1888 Montana produced $4,250,000 in gold, $19,500,000 in silver, $13,685,000 in copper, and $1,050,000 in lead. The Butte mines alone produced $23,000,000 in 1888, from their remarkable series of ore channels, five miles long and from ten to 100 feet wide, and of unknown depth. The great corporations at work here make enormous and unreported profits, and have some of the most costly and efficient plants in the world. The Granite-Mountain mine has produced $12,000,000 since 1880. Eight hundred men are employed here. The Drum-Lummon mine, at Marysville, has sent out upwards of $6,000,000. Immense deposits of copper occur at Butte, Copperopolis, and other points, the ore yielding from 20 to 50 per cent. of metal. Butte and Anaconda have sent out 120,000,000 pounds in a year, their product being one fourth of the world's supply.

CATTLE IN MONTANA.

Coal-measures underlie 60,000 square miles, along the Missouri and Yellowstone. There is much poor lignite; but the mines near Livingston and Bozeman produce a valuable coking coal, and large deposits occur at other points. The coal-fields east and south from Sand Coulee cover 360 square miles, along the Belt Mountains, 14 miles from Great Falls; and send out their product over a branch railway, supplying the Montana Central and Great Northern Railways. One thousand tons are mined daily, by 400 men, from veins varying in thickness from six to 20 feet. It is a valuable steam coal, and much of it cokes well. Large deposits of black-band iron-ore are found in the Belt Range, near Great Falls, and bog and magnetic ores occur elsewhere. The mountains yield inexhaustible supplies of pale pink porphyry, gray granite, cream-colored sandstone, white and tinted marbles, limestone and fire-clay; and plumbago and quicksilver, zinc and other minerals have been found.


DAIRY FARM IN MONTANA.

The Government includes the usual executive officers, elected by the people; and a legislature of 16 senators and 55 representatives. The Supreme Court has three justices. The State Militia consists of a regiment of seven companies of infantry,

DEER LODGE: THE COLLEGE OF MONTANA.

and also two companies of cavalry. Convicts are confined in idleness in the United-States Penitentiary at Deer Lodge, the State paying for them. The Insane Asylum is at Warm Springs.

Education has been from the first one of the chief interests of the community, and wise laws have fostered and guarded its growth, although under the great disadvantages of a widely scattered population. The College of Montana was opened at Deer Lodge, in 1883, and its buildings, Trask Hall and the North and South Dormitories, overlook the valley and its mountain-walls. It is a co-educational and Christian school, with 32 students in the college and the school of mines, 80 in the academy, and 38 in other departments. Montana University is a new Methodist institution, at Helena, and a part of its noble projected building has been erected and occupied.

Helena has the Law and Free Libraries, and the valuable collections of the Montana Historical Society, besides several large private entrances.

The first newspaper was the *Montana Post*, started at Virginia City in 1864, and the *Helena Herald* began its issues in 1866. The *Independent* started at Deer Lodge in 1867, and moved to Helena in 1874.

Religion entered Montana with the Jesuit priests, who were entreated by the Flatheads to come hither, nearly 60 years ago. The cathedral, hospital, asylum and academy of this church are at Helena; and more than a score of churches lift their crosses over other cities. Episcopal services were held at Virginia City in 1865, and the State now forms a missionary diocese, with 25 parishes and nearly 1,000 communicants. The Presbytery of Montana arose in 1872, and contains several churches. Methodist services were first held in 1863, at Virginia City, and the denomination now has more than a score of societies. The Baptists and other denominations are well represented. The old-time frontier gibe that "west of Bismarck there is no Sunday, and west of Miles City there is no God," is heard no more.

HELENA: ST.-JOHN'S HOSPITAL.

National Works.—The chief of the garrisoned defences of Montana is Fort Assiniboine, near Milk River and the Bear-Paw Mountains, and 65 miles northeast of Fort Benton. It is a nine-company fort, one of the most commodious in the West, built in 1879, to repress the forays of the Sioux exiled from Assiniboia, and to hold in check the Piegans, Gros Ventres and Assiniboines. It has garrison-schools, chapel, theatre, gymnasium, reading-room and gardens. Fort Keogh, on the Yellowstone, is a nine-company fort, erected by Gen. Miles, in 1877, to hold the Sioux in check. Fort Custer, with a garrison of seven companies, was built in 1877, near the scene of the Custer massacre. Fort Shaw, founded in 1867, to protect the Helena-Benton road from incursions of the Northern Indians, is on the Sun River, and contains four companies. Fort Maginnis, with two companies, was established in the Judith Basin, in 1880. Camp Poplar-River, with two companies, dates from 1882, and protects the Fort-Peck Agency, on the Missouri. Fort Missoula, on the St. Mary's, is held by four companies. About 1,600 soldiers make up the Montana garrisons. Many other border fortresses were erected and defended by the National and Territorial troops and the fur-companies, and afterwards abandoned, and destroyed by the Indians, leaving hardly a trace of their existence.

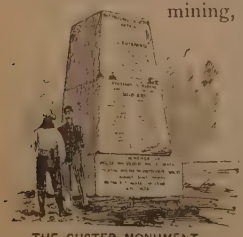
HELENA: MONTANA UNIVERSITY.

FORT ASSINIBOINE.

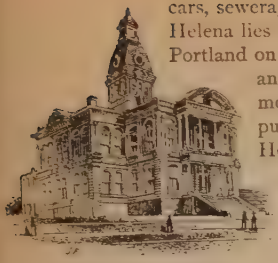
The Flathead Agency has charge of 1,000 Pend'Oreilles, industrious and comfortable farmers in the Mission Valley; 500 Flatheads, including the Bitter-Root clan, recently placed on the reservation; 62 Lower Kalispels, moved hither from Idaho; and 425 Kootenais, "inveterate loafers and gamblers." The agency is in the pleasant and mountain-girt Jocko Valley, 30 by ten miles in area, and the reservation extends for 60 miles, covering 1,500,000 acres. The Flatheads are an inoffensive and industrious tribe, whose boast is that they never killed a white man. The Pend'Oreilles and Flathead (or Selish) tribes are of the same race and language. They have received religious and other instruction from the Jesuit schools and churches, at St.-Mary's Mission, founded by Father DeSmet, under the Bitter-Root Mountains, and St.-Ignatius' Mission, near the red cliffs that enwall the Jocko Valley. The Italian priests stationed here for half a century published a dictionary of Kalispel-English and English-Kalispel, from the printing-house at the Mission. The Blackfeet, Bloods and Piegans have a reservation 45 miles square, northeast of Flathead Lake, governed by an agent and a band of efficient Indian police. They number 1,800 persons. The Crow Indians number 2,300, occupying a reservation in southern Montana, with their agency near Custer's battle-field. Since Gen. Ruger defeated and slew their chief, Sword Bearer, in 1887, the tribe has been settling into farmers and freighters. The children are taught in agency, Jesuit and Unitarian schools. The Northern Cheyennes have their reservation and agency contiguous to and east of the Crow country, among ranges of gloomy mountains. There are 900 people in this tribe, placed here in 1881, by Gen. Miles, as prisoners of war. The reservation of 840,000 acres between the Little Rocky Mountains and Milk River is occupied by 800 Gros Ventres and 1,000 Assiniboines. The Fort-Peck Agency has 713 Assiniboines and 1,200 Yankton Sioux. The Assiniboines have now 5,000 in the Prairie and Wood Assiniboines in Canada, and 5,000 in the Upper and Red-Stone clans of Montana.

FORT BENTON.

Chief Cities.—Helena, the legislative, judicial, financial, commercial and educational capital and chief railway centre of Montana, is at the eastern base of the Missouri range of the Rocky Mountains. It is no longer the old mining-camp, but ranks among the brightest and most hopeful and enterprising of Western cities, and claims to be one of the richest cities of its size in the world. Several of the millionaires of Montana have made their homes at Helena, which has in its West End a very pleasant residence-quarter, overlooked by the Rocky Mountains. The city has creditable public buildings, and many solid, handsome and modern business blocks, occupied by prosperous and substantial firms. The vast mining, stock-raising and farming operations of the Bonanza State centre their finances in Helena, which increases in population with the amazing development of these properties. The city is also rich in fine schools and churches, and has several good clubs. Helena stands in the Prickly-Pear Valley, in a picturesquely diversified situation, and amid interesting mountain-scenery. It is 4,256 feet above the sea, and has a dry and invigorating atmosphere, with over 250 days of sunshine in a year. It is a healthy climate, free from consumption, malaria or hay-fever. The city has electric and gas lights, electric, horse, and dummy street-



THE CUSTER MONUMENT.



BUTTE: COURT-HOUSE.

cars, sewerage, water-works, public libraries, and a large fire-department. Helena lies 1,100 miles from Minneapolis on the east, and 900 miles from Portland on the west. At this midland point, and in the centre of rich and progressive Montana, stands this brave young city of the mountains, with a population of about 15,000, and having a reputed wealth of $100,000,000. The welfare and advancement of Helena are fostered by a Board of Trade, and also by an active Citizens' Committee. At Helena is the U.-S. Assay Office, and Broadwater's half-million-dollar hotel and natatorium.

Butte City is a smoky, busy and nervous mining camp of 10,000 people, the seat of the great Anaconda Mine, and other gold, silver and copper properties, with an output of $23,000,000 a year. Cable cars, zigzag railways, electric lights, tall iron chimneys and hundreds of saloons help to make up the largest mining-camp in America. Twenty-eight miles west, at Anaconda (founded in 1883), is the largest smelter in the world, working night and day on the ores from the Anaconda Mine. Great Falls has grown within five years to an important railway and manufacturing town of 5,000 inhabitants, the chief wool-market in the State, and with the Boston & Montana Copper-Smelter and Refining-Works and the Great-Falls Silver-Lead Smelter. Fort Benton, at the head of navigation on the Missouri, is still the centre of the fur-trade, and has grown to be a city of several thousand people. Virginia City is near the Madison River and at the head of the famous Alder Gulch. Bozeman nestles at the head of the Gallatin Valley, surrounded by the noble peaks of the Rocky and Belt Mountains, and in a region of rich farms and mines. Miles City and Glendive are exporting points for the lower Yellowstone cattlemen. Missoula flourishes in mining, lumbering and farming, and it is the third city in the State.

GLENDIVE.

The Railroads of Montana had twelve miles of track in 1880. They now operate above 1,800 miles. The Utah & Northern Railroad, from Ogden to Butte, Helena and Garrison, 584 miles, entered Montana in 1880 by way of Beaver Cañon. It pertains to the Union Pacific system. The Northern Pacific traverses the State from east to northwest, and throws off many branches, its lines within Montana aggregating above 1,000 miles. The Bozeman Tunnel, 3,600 feet long, and the Mullan Tunnel, 3,850 feet long, were both opened in 1883,

BUTTE CITY, THE GREAT MINING CAMP.

the same year in which Henry Villard drove the famous golden spike, completing the transcontinental line of the Northern Pacific, between Garrison and Gold Creek. The Great Northern Railway follows the Missouri and Milk Rivers from the eastern border of Montana

HELENA, THE CAPITAL OF MONTANA.

clear across the State, entering Idaho over the Marias Pass. A branch diverges from Fort Assiniboine to Great Falls and Helena; and minor lines connect Great Falls with Sand Coulée and Niehart. The Great Northern Railway, from Minot westward to Great Falls, a distance of 600 miles, was built in six months, or at the rate of over 100 miles a month. The Montana Union line connects Butte, Silver Bow and Garrison (52 miles). The Great Falls & Canada Railway connects Great Falls with Lethbridge, in the Province of Alberta, and Dunmore, in Assiniboia, on the Canadian Pacific line. There are many miles of railroad under construction in all parts of the State.

Finance.—The annual product of Montana is over $60,000,000 (one half in metal, one third in live-stock, one sixth in farm-products and lumber), or nearly $400 for each inhabitant, man, woman and child. It is claimed that no other country in the world can show an equal product for its population. Much of the steady advance in prosperity is due to the conspicuous financial ability of some of the pioneers, who founded institutions of enduring merit. The First National Bank of Helena was organized in 1866, with a capital of $100,000, the first National bank in Montana, and the United-States depository. This pioneer institution met with great prosperity, and increased its capital from time to time, until it became the strongest financial corporation in the far Northwest, with resources of nearly $5,000,000. The capital is $500,000, with a surplus of $100,000, and undivided profits of $600,000, after paying dividends amounting to $272,000. In 1887 it completed and occupied a handsome and convenient three-story building of granite and brownstone, on the corner of Grand and Main Streets. The president of the bank from its foundation has been the Hon. Samuel T. Hauser, who entered Montana as a pioneer in 1862, and served a term as Governor of the Territory, under appointment from President Cleveland.

HELENA: FIRST NATIONAL BANK.

"Montana, mountainous or full of mountains, is a name no less beautiful than significant. From the summit of its loftiest peak — Mount Hayden — may be seen within a day's ride of each other, the sources of the three great arteries of the territory owned by the United States — the Missouri, the Colorado, and the Columbia. * * * Could we stand on the summit of Mount Hayden, we should see at first nothing but a chaos of mountains, whose confused features are softened by vast undulating masses of forest; then would come out of the chaos stretches of grassy plains, a glint of a lake here and there, dark cañons made by the many streams converging to form the monarch river, rocky pinnacles shooting up out of interminable forests, and rising above all, a silvery ridge of eternal snow, which imparts to the range its earliest name of Shining Mountains."—H. H. BANCROFT'S *History of Washington, Idaho, and Montana.*

BOZEMAN.

HISTORY.

Coronado's Spanish army probably reached the Platte Valley in 1541. The aboriginal inhabitants were the Pawnees, between the Platte and the Republican; the Missouris and Otoes, south of the lower Platte; the Omahas, near the mouth of the Niobrara; and the Sioux, in the northwest. These tribes were continually at war with each other, and many a merciless raid of Missouris swept the Omaha villages, and received retaliation from the warriors of the Niobrara; while the Sioux, with pitiless impartiality, slaughtered all their neighbors, and especially the Pawnee horsemen. In 1832 the Pawnees defeated the Sioux, after a battle waged by 16,000 warriors for three days. There were 2,300 Sioux slain, and 2,000 Pawnees; and after the conflict, the victors burned 700 of their captives alive.

Nebraska was a part of French Louisiana, and came to the United States by Jefferson's purchase. It belonged to the District of Louisiana (1804); then to the Territory of Louisiana (1805); then to the Indian Country (1834); and then to Nebraska Territory (1854), which also included Montana, eastern Wyoming, western Dakota, and part of Colorado. From this domain eastern Colorado was taken in 1861; and Montana and western Dakota, and part of Wyoming, in 1863.

In 1805 Manuel Lisa founded, at Bellevue, a trading-post for commerce with the Indians; and the American Fur Company, in 1810, established another little fort at the same place. Their official, Col. Peter A. Sarpy, located at Bellevue in 1824, and became the first permanent white settler in Nebraska. Old Fort Kearney was established at Nebraska City in 1847, and new Fort Kearney (on the Platte River) in 1848, for the protection of the Oregon Trail. The Mormon exodus of 1847, and the great overland migrations, started by the discovery of gold

STATISTICS.

Settled at	Bellevue.
Settled in	1810
Founded by	Americans.
Admitted as a State,	1867
Population in 1860,	28,841
In 1870,	122,993
In 1880,	452,402
White,	449,764
Colored,	2,638
American-born,	354,988
Foreign-born,	97,414
Males,	249,241
Females,	203,161
In 1890 (U. S. Census),	1,058,910
Population to the square mile,	5.9
Voting Population,	129,042
Vote for Harrison (1888),	108,425
Vote for Cleveland (1888),	80,552
Net State Debt,	None.
Assessed Valuation of Property (1890),	$185,000,000
Area (square miles),	77,510
U. S. Representatives (in 1893),	6
Militia (disciplined),	1,344
Counties,	91
Post-offices,	1,127
Railroads (miles),	5,295
Vessels,	19
Tonnage,	2,687
Manufactures (yearly),	$12,627,336
Operatives,	4,793
Yearly Wages,	$1,743,311
Farm Land (in acres),	9,944,826
Farm-Land Values,	$105,932,541
Farm Products (yearly),	$37,708,914
Public Schools, Average Daily Attendance,	159,692
Newspapers,	610
Latitude,	40° to 43° N.
Longitude,	95°23′ to 104° W.
Temperature,	—35° to 107°
Mean Temperature (Omaha),	49°

TEN CHIEF CITIES AND THEIR POPULATIONS (CENSUS OF 1890).

Omaha,	140,452
Lincoln,	55,154
Beatrice,	13,836
Hastings,	13,584
Nebraska City,	11,494
Plattsmouth,	8,392
Kearney,	8,074
South Omaha,	8,062
Grand Island,	7,536
Fremont,	6,747

LINCOLN: THE FIRST HOUSE.

in California, called attention to the Platte country. In 1850 the Lone-Tree Ferry was established, to carry emigrants across the Missouri; and the next year the ferryman staked off the first claim at Omaha, the town being laid out in 1854. After the collapse of the Pike's-Peak gold excitement, in 1859, thousands of weary adventurers moved eastward to Nebraska, and opened farms. The pioneers wrongly rated the high prairies as sterile, and located along the river bottoms, and it was difficult to get them out on the uplands. In 1863–4 the railroads began to sell their vast grants, and new tides of immigration poured in. Out of a population of 30,000, Nebraska gave 3,307 soldiers to the Union. The First Nebraska Regiment fought for five years in the Gulf States, Missouri and Nebraska. The Second Nebraska Cavalry hunted the Sioux in Nebraska and Dakota. Curtiss' Horse, including four companies, belonged to the Southwestern Army. Companies of Pawnee and Omaha Indians, and of Territorial militia, were sent into the field during the Sioux and Cheyenne invasion of Nebraska, in 1864. During the early days the settlers suffered greatly from the forays of the Indians, who killed many of the pioneers, and ravaged the remoter valleys. Lincoln became the capital in 1867, succeeding Omaha; and the new Constitution went into operation in 1875. Recent legislation points toward abolishing alien ownership of land, and restricting land-owner-ship to that in actual use and occupation.

The Name, Nebraska, is an Indian word, meaning "Shallow Water," and referring to the Platte, which Artemus Ward said would be "considerable of a river if it were set up edgewise." It is sometimes called THE ANTELOPE STATE, from an old-time dweller on the plains; and also *The Blackwater State*, from its streams, darkened by the rich black soil.

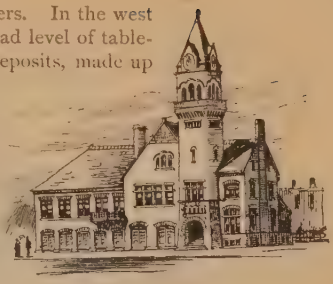
The Arms of the State show a blacksmith at work, between a wheat-sheaf and a tree, with a log-cabin and a wheat-field, and a river bearing a steamboat, and a railroad train beyond. The motto is: EQUALITY BEFORE THE LAW. Congress refused to accept the first Constitution of Nebraska, giving the suffrage to white citizens only, and ordered that there should "be no denial of the elective franchise * * * * by reason of race or color." The Legislature struck out the word "white," the first precedent of the kind.

The Governors of Nebraska have been: *Territorial:* Francis Burt, 1854; Thomas B. Cuming (acting), 1854 5; Mark W. Izard, 1855–8; William A. Richardson, 1858; Samuel W. Black, 1858 61; Alvin Saunders, 1861 7. *State:* David Butler, 1867–71; William H. James, 1871 3; R. W. Furnas, 1873 5; Silas Garber, 1875–9; Albinus Nance, 1879–83; J. W. Dawes, 1883 7; John M. Thayer, 1887–92; and James E. Boyd, 1892.

Descriptive.—There are no mountains in the State, but the undulating prairies and rich alluvial valleys and table-lands form a gradual ascent from the mouth of the Nemaha, in the southeast, 860 feet above the sea, to Scott's Bluffs, in the far west, 6,000 feet above the sea. Chappell is 5,702 feet above the sea-level. The surface may be divided into 50 per cent. of rolling prairie, 20 of the level table-land of the west, 10 of bluffs, and 20 of valley and bottom-land. The streams flow amid strips of woodland, often bounded by rounded bluffs, and then by terraces rising to the uplands. Along the Missouri the country is broken and rolling, and in the west there are deep cañons; but over the rest of the State sweep the gentle swells of the prairies, motionless waves of pale green land, meadow-like in their rich verdure, and devoid of shrubbery and stones. The high uplands are indented with basin-like hollows, once the beds of

WEST STORM LAKE.

ponds, and some of them still occupied by bright waters. In the west the green waves of prairie and bluff sink down into a dead level of table-land. The uplands are overlaid with deep lacustrine deposits, made up of finely comminuted silicious matter, abounding in lime and iron, and forming one of the richest soils for tillage in the world. Vast natural pastures cover these uplands; and here, in earlier days, myriads of cattle from the farther West were fattened, before their departure for the eastern shambles, or the great packing-houses at Omaha.



KEARNEY: CITY HALL.

The Missouri River, crooked and shifting, forms the eastern boundary for 500 miles, from 1,000 to 3,000 feet wide, and traversed above Omaha by half a dozen Government steamboats a year, bearing military supplies to the remote Northwestern posts. Its navigation extends 2,000 miles above Omaha. The other rivers contain many rapids, valuable for water-power, after leaving their upper courses, and entering the region of bluffs. The Platte is a broad and shallow stream, fordable at many points, flowing around large grassy or wooded islands, and forming the centre of a valley many leagues wide. It rises amid the snows of the Rocky Mountains, in the North and South Forks, which unite at North Platte; and runs 1,200 miles eastward to the Missouri. The Elkhorn is a marvellously crooked stream, flowing 300 miles southeast to the lower Platte, a rapid river, with rich bottom-lands. The Loup is another swift-flowing tributary, 250 miles long, rising in the lakelets near the sand-hills. The Republican River, in southern Nebraska, has a rich valley, from three to six miles wide, and over 200 miles long, famous for its pleasant pastoral scenery. The rapid Niobrara rises in Wyoming, and flows 300 miles east to the Missouri, with heavily wooded bottoms. For 180 miles in western Nebraska it roars through a cañon, between precipitous walls of rock. The State has many other rivers, like the Salt, the White, the Big Blue, the Little Blue, the Great Nemaha, and the Keya Paha. There are hundreds of shallow and reedy lakes about the heads of the Elkhorn, Pine, and Loup, thronged from March till December with geese, ducks, swans, cranes, pelicans, herons, and other game-birds, with myriads of grouse on the hills. This region, very attractive to the sportsman, is reached from Alliance.

PLATTE RIVER, NEAR SILVER CREEK.

The great divide, in northern Nebraska, rises from 1,000 feet high at the Missouri to 3,500 feet high in the west.

The Bad Lands of Dakota extend into northern Nebraska, with their desolation of water-chiselled white rock and clay, resembling ruined cities, and full of fossil remains of rhinoceri, monkeys, sabre-toothed tigers, colossal turtles, camel-headed hogs, and other miocene monsters. The chief feature is the long cañon of the Niobrara, with hundreds of lateral cañons, in whose darkness the streams rush and roar over rocky channels. In the north are thousands of square miles of conical and crater-like sand-hills, from 25 to 400 feet high, some of them anchored by nutritious grasses, and others changing their form with every gale. The Bad Lands begin on the Niobrara, 90 miles from its mouth, and run west for 180 miles, and where they stop the sand-hills begin, and have a length of 150 miles, and a width of from 10 to 25 miles. At Scott's Bluffs the horizontal strata

OMAHA: DOUGLAS-COUNTY COURT-HOUSE.

of whitish and yellowish-white clays and sandstones have been weathered into the forms of domes and towers, castles and churches, and many other singular shapes.

OMAHA: Y. M. C. A.

The woodlands of Nebraska are inadequate, but the people take great interest in planting trees, and since the prairie-fires have ceased, an interesting progress has been made in afforesting the State, fully 700,000,000 trees having been planted. The cottonwood is the most abundant variety, and the black walnut the most valuable. Pines, cedars, maples, oaks, elms, hickories, lindens, locusts, and willows are also found. Wild plums, cherries, mulberries, and paw-paws grow everywhere, and the grapes sometimes cover whole forests with their luxuriant network of vines.

The Climate is healthy and invigorating, free from consumption and malarial diseases, and full of tonic properties. The winters are brightened by many dry and sunny days; the summers are refreshed by almost constant prairie-breezes and cool, calm nights; and the autumnal season rests under a soft blue haze and mellowed sunshine. What has been the most objectionable feature in the climate, the prevalence of high winds at certain seasons, is gradually disappearing as the country is settled, and what was once an objection, receives hardly a thought. The mean temperature in winter is 20°; in spring, 47°; in summer, 72° to 76°; in autumn, 49°. About 15 times during the winter the thermometer descends to zero, aided by the northwest winds from the Rocky Mountains, but the air is so dry that the cold brings little discomfort. In the Missouri Valley 40 inches of rain fall yearly; 32 inches, 100 miles west; 30 inches, 200 miles west; and 17 inches 400 miles west. The rainy season comes in early summer, and lasts from four to eight weeks, not in continuous rain, but occasional showers—just when it is most needed. The increased rainfall is not proved yet (see Greeley's recent report on the climate of Nebraska). It has been popularly claimed, and is probably inferred from the known extension of the crop-raising territory over regions to the westward, which were until recently incapable of producing crops. The true explanation is probably that formerly the rain falling on the unbroken sod was conveyed over the soil to the watercourses, and that now, the sod being broken up, the rain no longer is shed as by a roof, but is absorbed by the cultivated fields and retained as in a sponge. It is doubtless a question of saving and storing, rather than of increasing the rainfall.

OMAHA: DOUGLAS-COUNTY HOSPITAL.

Farming.—The value of Nebraska's farm-products, corn, wheat, oats, rye, barley, flax-seed, sorghum, millet, and broom-corn, passes $60,000,000 a year. The cereal crops increased 1,000 per cent. between 1870 and 1880, at which time they amounted to 88,000,000 bushels. In 1888 the State bore 210,000,000 bushels of cereals (valued at $50,000,000), three fourths of which was in corn, although four fifths of its area is as yet untilled. In 1889 the product was 270,000,000 bushels. There are 65,000 farms, and land averages $10 an acre. In respect to fruit, Nebraska excels in apples, strawberries, cherries, grapes and plums, with peaches south of the Platte. There are 4,000,000 fruit trees and 1,300,000 grapevines. In the eastern counties there are large fruit canneries.

LINCOLN: WESLEYAN UNIVERSITY.

Under the new law extending encouragement by a bounty of two cents a pound on beet-sugar, large

factories have been constructed at Grand Island and Norfolk, with a joint capacity of from 600 to 800 tons of sugar-beets a day. They cost upwards of $1,000,000, being fully equipped with the latest machinery from Germany. At Grand Island 2,000,000 pounds of beet-sugar was made in 1890. This is the initial step taken to render Nebraska a great sugar-producing State, its soil being peculiarly adapted to the sugar-beet.

The prominence of Nebraska as a meat-producing State is due to its abundant corn, and summer and winter pasturage, on the plains of the west. The Nebraska cattle command high prices, and afford a wide margin of profit. The State has 4,700,000 head of live-stock, valued at $81,000,000.

GRANT MEMORIAL HALL.

UNIVERSITY HALL.

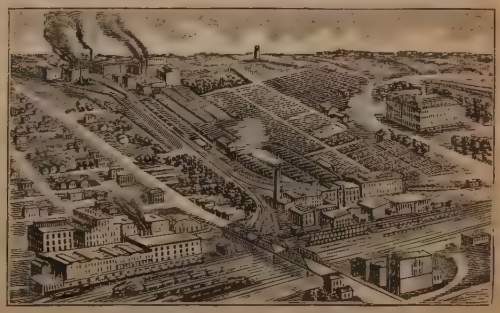
NEBRASKA HALL.

LINCOLN: UNIVERSITY OF NEBRASKA.

Dairy products have attained a high value; and creameries have become one of the principal industries, making the finest butter in the land, and increasing their product each year.

Much of the great plateau has been converted into stock-farms, the cattle being held under fence, or in small "close" herds during the summer, and "hay-fed" during the winter. They are turned off the grass as "feeders," and corn-fed and corn-fattened before going to market as fat cattle. The "feeders" are shipped to the cattle-markets, Chicago, South Omaha, and Kansas City, and are sold to buyers who take them to fatten on corn, and return them to the markets from four to eight months later as fat cattle. The old "Texas trail," in Nebraska, is abandoned. It would be impossible for a Texan herd to get through Kansas into Nebraska, or across western Nebraska, owing to the thick settlement of the land.

The situation of Omaha, in the heart of the corn-producing belt, made it by nature a gigantic live-stock market, and in 1884 a strong company of capitalists founded here the Omaha Union Stock-Yards, which have developed into one of the chief elements in the upbuilding of the city. The original capital of $750,000 was necessarily increased to $4,000,000; and 200 acres of land in South Omaha are now occupied by the yards, competent to take care of 30,000 animals at one time, and traversed by many miles of track, connecting with the great railways centering at Omaha. The three greatest live-stock marts of the world are respectively Chicago, Kansas City, and Omaha. In 1889 the receipts were 500,000 cattle, 1,120,000 hogs, 160,000 sheep, and 7,500 horses and mules; and the business of 1890 reached almost double these figures. Near the Stock-Yards several immense meat-packing houses have been established, with plants valued at $2,500,000, and a daily capacity of 12,000 hogs, 2,500 beeves, and 1,000 sheep. At the Stock-Yards there are hotels, banks, telegraph-offices, and all



SOUTH OMAHA: THE UNION STOCK-YARDS.

OMAHA: BROWNELL HALL.

facilities for the successful handling of the immense quantities of live-stock, hogs, beeves, sheep, horses and mules, that are incessantly arriving at these capacious yards. There is also a thorough Live-Stock Exchange, which is the rendezvous of the large army of shippers and buyers of live-stock.

Coal underlies the eastern counties and the Republican Valley, both lignite and bituminous, and furnishes fuel for local use. It occurs in thin seams, and hardly pays for working. A four-foot seam has lately been found at Hubbell, at a depth of 120 feet. There are extensive beds of peat in the west. The great salt basin near Lincoln covers a marsh of 200 acres, in which rise numerous saline springs, whose waters test 25° to 35° by the salometer. Many quarries of blue and white carboniferous and gray magnesian limestone and brown and red sandstone, are worked in various parts of the State.

The Government includes a governor and executive officers, elected every two years; a legislature, meeting every two years; a supreme court of three justices; and district and county courts. The State House is of Platte-River limestone, handsomely finished inside, and crowned by a dome 200 feet high.

The National Guard has yearly encampments. It includes two regiments of infantry, a battery, and a troop of cavalry, wearing the United-States uniform.

OMAHA; TRINITY CATHEDRAL.

The Soldiers' and Sailors' Home, opened in 1888, on a domain of 640 acres, at Grand Island, has a large building for unmarried veterans, and a series of seven pleasant double cottages on five-acre tracts, for men with families. The State Penitentiary is a massive stone structure, located at Lincoln, in 1869, and holding in duress 400 convicts. The Industrial School for Juvenile Offenders occupies a farm of 220 acres, near Kearney, where 170 children are busied in school, workshop and field, and held under family discipline only. The Institute for the Deaf and Dumb was opened at Omaha, in 1869, and has 150 pupils. The Institute for the Blind, at Nebraska City, has musical and industrial departments. There are large insane asylums at Lincoln (400 patients) and Norfolk, and at Hastings (for incurables); and the Asylum for Feeble-Minded Children and Adults is near Beatrice. The State Home for the Friendless, at Lincoln, has 120 inmates. The Industrial Home, at Milford, has 50 inmates.

Education.—The common schools are liberally endowed, the fund from land sales amounting to $7,000,000, and rapidly increasing. The school-buildings have cost above $5,000,000. The average attendance is 73 per cent. of the children of school-age. Many districts furnish text-books free. The proportion of illiteracy is smaller than that of any State except Iowa, being but 2.5 per cent. of the population above ten years of age.

OMAHA: PUMP-HOUSE, WATER-WORKS.

The University of Nebraska opened its doors in 1871, and occupies an embowered park at Lincoln. There are 474 students; 15 in graduate studies, 159 in academic, 76 in industrial and agricultural, 138 in the Latin school, and 166 in the School of the Fine Arts, all of whom are taught gratuitously. They include young men and women. The former compose a battalion of four companies and three gun detachments, drilled by a regular-army officer. The buildings include University Hall;

Nebraska Hall, for the Industrial College; the Chemical Laboratory; and Grant Memorial Hall, used for the armory, drill-hall, and gymnasium. These are all large brick buildings. The Agricultural Experiment Station Farm includes 320 acres of rolling uplands, with appropriate houses and other buildings. The libraries contain 12,000 volumes, and the museums are large and interesting, with collections of minerals and fossils, and a valuable herbarium.

OMAHA: UNION PACIFIC RAILROAD BRIDGE.

Doane College, founded at Crete, in 1872, with 80 students, and Gates College, at Neligh, with 18 students, are Congregational schools. Nebraska Central College, at Central City, with 51 students, and the Methodist Episcopal College, at York, with 220 students, are Methodist. Creighton College, at Omaha, is Catholic. Hastings College belongs to the Presbyterians. There are Wesleyan and Campbellite universities near Lincoln.

Trinity Cathedral, at Omaha, is notable for its beautiful interior, memorial windows, chime of bells, and stone deanery. Brownell Hall, a girls' school, and the Child's Hospital, are also at Omaha.

The Newspapers of Nebraska include 514 weeklies, 30 dailies, and 18 monthlies. Twelve of these are in the German language, and others are in Danish, Scandinavian, Polish, and Bohemian. Among them are the *Granger*, *Bee*, *Bugle*, *Echo*, *Guard*, *Motor*, *Lever*, *Kaleidoscope*, *Headlight*, *Quaver*, *Pickings*, *Flail*, *Rustler*, *Vidette*, *Signal*, *Nugget*, *Hub*, *Locomotive*, *Quirt*, *Grip*, *Quiz*, *Quill*, *Helmet*, *Phonograph*, *Blade*, *Clarion*, *Tornado*, *Hornet*, *Breeze*, and *Hoof and Horn*.

OMAHA: "THE BEE" BUILDING.

The Omaha Daily *Bee* is acknowledged to be the greatest newspaper between Chicago and San Francisco. It is one of the very few great papers in America still owned and controlled by its founder, who has continued as its editor-in-chief for 20 years. By its constant aggressive policy, thorough Western character, and energy and enterprise, it has grown from a little four-column folio to the proportions of a metropolitan paper, equal to the very best in every respect. *The Bee* was brought into existence in 1871, through the desire of its present owner, Edward Rosewater, to champion an educational bill before the Nebraska Legislature, and sprang into popularity unexpectedly. Its founder did not contemplate building up a newspaper, but being encouraged by the phenomenal success, continued its publication until *The Bee* was placed upon a firm and enduring foundation. *The Bee* Building, completed in 1889, at a cost of $500,000, occupies a larger ground area than any other newspaper building in America. The two lower stories are of porphyry, with polished porphyry columns; and the five upper stories are of chocolate-colored obsidian brick. It forms a square of 132 feet on each side, enclosing a glass-domed court which lights all the inner rooms. The interior is wainscoted with Tennessee and Italian marble; the floors are laid in mosaic and encaustic tiling; and the finish is in oak. The building is absolutely fire-proof, and is in nearly all respects the ideal newspaper headquarters of this country. While *The Bee* has always been a Republican paper, and its distinctive policy has been to champion the interests and

OMAHA; NEW-YORK LIFE-INS. CO.

rights of the producer and bread-winner, as against monopolistic encroachments, its influence has been potential in every political campaign during the past 18 years, and its steadfast advocacy of the rights of the people has gained for it a position well-nigh impregnable. For more than ten years past two editions daily have been issued. The *Sunday Bee* was established five years ago.

OMAHA: OMAHA NATIONAL BANK.

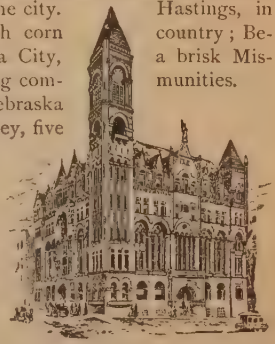
Finances.—In 1890, there were 669 banks and bankers in Nebraska. The immense strides made by the West are more clearly shown in the strong condition of her banks than in any other department of commercial affairs. The prosaic history of a bank reflects accurately the rise and progress of a town, and is a fair but conservative indication of its possibilities. The story of the Omaha National Bank is a shining example of Western enterprise and energy. When the bank opened, in 1866, with a capital of $50,000, there were but nine banks and bankers in Nebraska, and within 60 miles of Omaha white men had been massacred by Indians that very summer. The town was a frontier outpost and outfitting point, and its nearness to the gold-fields was evidenced by the fact that among the assets of the Omaha National Bank that year were $9,000 in gold-dust. In 1866 the deposits of the bank were $130,000; in 1882, they rose to $2,075,000; and now they reach $6,500,000, with the bank capital advanced to $1,000,000. But the live business of a growing country can be better shown by the volume of trade in the daily transactions of its banks, or its extended lists of banks keeping actual accounts in its money center than by its deposits. The daily transactions of the bank in October, 1866, reached $17,173, and in October, 1890, these figures reached $2,048,194. A line of banks extending from Des Moines, Iowa, to Portland, Oregon, together with transcontinental points like Salt-Lake City, Butte, and Helena, keep their accounts with the Omaha National Bank. The records of this bank show that it has upwards of 2,400 private and 450 bank accounts, while in April, 1867, there were only two bank and 219 private accounts. The Omaha National's strength has always been in its careful and conservative management, and the policy of "doing a banking business only." It has been well officered, by strong men. The late Hon. Ezra Millard was the first President, and J. M. Field, Cashier. Mr. Field resigning in December, 1866, Hon. J. H. Millard was elected Cashier, and in 1884 succeeded to the Presidency. Mr. Millard ranks very high as an able financier, and the present strong status of the Omaha National is largely due to his wise and skilful management.

BEATRICE: GAGE-COUNTY COURT-HOUSE.

Chief Cities.—Omaha occupies a plateau 80 feet above the Missouri, and 18 miles north of the inflowing of the Platte, and has grown from 4,000 inhabitants, in 1860, to 30,518 in 1880, 61,835 in 1885, and 140,000 in 1890, having a trade of $75,000,000 yearly with the mining and farming States. The Omaha & Grant Smelting-Works, the largest in America, are here, resolving one fourth of the silver of the United States, and great quantities of gold. The city has noble public buildings, broad avenues, 95 churches, a belt-line of railroad, and 100 miles of motor, cable and horse railways in her streets. Among the finest buildings is that belonging to the New-York Life-Insurance Company. There are immense pork and beef packing establishments at South Omaha.

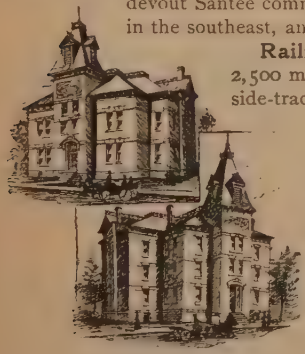
OMAHA: GOVERNMENT BUILDING.

Lincoln, the capital and chief railroad-centre, has many elevators for the grain of Nebraska, and large stockyards. Kearney is an important city on the Platte, founded in 1872. The water-power, which is expected to make a second Minneapolis here, comes from a canal leading from the Platte, 16 miles west, to the bluffs behind the city. Hastings, in the south centre, a solidly-built commercial city, in a rich corn country; Beatrice, in the southeast, with large quarries; and Nebraska City, a brisk Missouri-River port, 26 miles below the Platte, are fast-growing communities.


OMAHA: NEW CITY HALL.

United-States Institutions.—The military posts in Nebraska are Fort Omaha, with ten companies in garrison; Fort Sidney, five companies; and Forts Niobrara and Robinson, eight companies each. The headquarters of the Department of the Platte is at Omaha.

The Omaha and Winnebago Reservation cares for 2,400 Indians, with a school and an industrial boarding-school. The Santee Agency, farther up the Missouri, has 1,400 Santee Sioux Indians, from Minnesota, on allotted lands. The American Missionary Association supports two churches here, and the large and efficient Santee Normal Training School for 150 boys and girls, teaching the English branches, military drill, and mechanical work. The Episcopalians have three chapels, with many devout Santee communicants. The Sacs and Foxes have a small reservation in the southeast, and the Ogalalla Sioux are at Pine Ridge, in the northwest.


HASTINGS:
HASTINGS COLLEGE AND McCORMICK HALL.

Railroads.—The Burlington & Missouri-River Railroad controls 2,500 miles in the State. This road has at Lincoln 42 miles of side-track, on which 800 men handle from 1,000 to 2,000 cars a day.

The Fremont, Elkhorn & Missouri-Valley Railroad operates over 960 miles of road, giving connection with the northwestern counties. The Union Pacific Railroad operates 875 miles of road, opening routes to the Pacific Coast and to the Kansas systems; the Missouri Pacific has 400 miles in the State, and gives a short line to Kansas City, St. Louis, and the East.

The Union-Pacific Railroad bridge, at Omaha, built in 1869–73, and afterwards enlarged, cost about $3,500,000, and is an iron structure of eleven spans, each 250 feet long. The steel railroad bridge at Nebraska City dates from 1887–8; and near it is a singular V-shaped pontoon bridge, with steel moving-chains. The fine railway bridges across the Missouri, at Blair and Plattsmouth, were built by the Keystone Bridge Company, of Pittsburgh, Penn. The last-named is a single-track structure of five spans (1,400 feet) resting on masonry piers, and approached by 1,560 feet of iron viaducts. The Blair Bridge was opened in 1883, and cost $2,000,000. The great Sibley and Rulo bridges, farther down the Missouri, were built by the Edge Moor Company, of Wilmington, Del.

The eastern and southern parts of Nebraska are thoroughly served by railways, whose lines have also covered the centre, and are advancing into the northwest. The latter region is already traversed from end to end by the great lines leading to the Black Hills and central Wyoming. The vast areas of sand hills, with their multitudes of round tops, from time immemorial a favorite haunt of buffalo, feeding on their scanty but nutritious grasses, have now been invaded by locomotives and ranchmen.

PLATTSMOUTH: C., B. & Q. RAILWAY BRIDGE.

OMAHA: BEMIS OMAHA BAG FACTORY.

The Manufactures of Nebraska numbered 1,403 in 1880, with a yearly product of $12,627,000. They have since trebled in number, and quadrupled in output. The Bemis Omaha Bag Factory is one of the features of Omaha's industries.

The situation of Nebraska between the parallels of latitude where the corn and wheat belts overlap each other, gives it a remarkable advantage among the Western commonwealths. The enormous production of cereals has been uniformly of a high merchantable grade, and the rapid advance of the railway systems affords the best facilities for transportation.

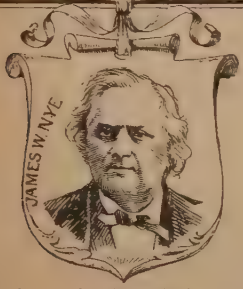
Muttering Thunder, an ancient Indian chief, informed Robert W. Furnas that the name *Maha* (applied to his tribe, and spoken by the French traders *Au Maha*, and by the Americans as *Omaha*) meant "Farthest up the River." It was given to the tribe in reference to their place on the Missouri River, as regarded the Otoe and Missouri Indians; and was pronounced O-maw-ha. The pioneer newspaper was the *Omaha Arrow*, issued in 1854, from the office of the Council-Bluffs *Bugle*. The Muscatine *Enquirer* made merry at the expense of the new metropolis, saying: "We learn that this young city contains the sum total of six houses. By the time the universal Yankee nation gets across Nebraska, but one house will be needed to constitute a city; and each squatter will lead a city life."

THE NEMAHA RIVER, ON THE MISSOURI PACIFIC RAILWAY.

In his *Universal Geography*, Jedediah Morse remarked that "It has been supposed that all settlers who go beyond the Mississippi River will be forever lost to the United States." Lieut. Pike reported to the War Department, that "From these immense prairies may be derived one great advantage to the United States; namely, the restriction of our population to some certain limits, and thereby a continuation of the Union. They will be constrained to limit their extent to the West, to the borders of the Missouri and Mississippi, while they leave the prairies, incapable of cultivation, to the wandering and uncivilized aborigines of the country." Major Long reported that this region bore "a manifest resemblance to the deserts of Siberia." *The Edinburgh Review* said: "There lies the desert, except in a few spots on the borders of the rivers, incapable, probably forever, of fixed settlements." *The North-American Review* (in 1858) said: "The people of the United States have reached their inland western frontier, and the banks of the Missouri River are the shores at the termination of a vast ocean desert over 1,000 miles in breadth, which it is proposed to travel, if at all, with caravans of camels, and which interpose a final barrier to the establishment of large communities, agricultural, commercial or even pastoral."

THE PLATTE RIVER: MISSOURI PACIFIC RAILWAY.

On these impracticable trans-Missouri deserts now dwell 5,000,000 happy Americans. The 122,000 Nebraskans of the year 1870 now number 1,100,000, with 120,000 improved farms, worth $300,000,000, and nearly all operated by owners, and provided with nearly $100,000,000 worth of live-stock. The net earnings of her railways reach $8,000,000 yearly; and her yearly manufactures exceed $50,000,000. As a desert, Nebraska is not a success.



HISTORY.

In 1825 forty trappers from the Yellowstone, under the leadership of Jedediah S. Smith of New York, followed the sluggish Humboldt River from its source to its sink in the Great Basin. Thence across the sage-brush plain they journeyed to the beautiful Walker Lake, an oblong jewel flashing in its mountain-hemmed solitude; thence up the Walker River, filing along the cañons, leaping the cascades, and clinging to the sides of the rifted rocks, they slowly climbed the mighty Sierras, until before them the broad valleys of California stretched in silent affluence. Ogden visited the Humboldt in 1831, Sublette in 1832, Bonneville and Kit Carson in 1833; and in 1834 Capt. Bartleson led the first company of overland emigrants across the Great Basin. In 1843–45 the camp-fires of Fremont gleamed along the track of the pioneers of 1825, while the Pathfinder explored and named the Humboldt and Carson Rivers, and Pyramid Lake.

Nevada is a part of the vast domain which was gained from Mexico in 1848, by the treaty of Guadalupe Hidalgo. Prior to 1861 Utah Territory extended to the California line, as did the ambitious Mormon "State of Deseret," organized in 1849, whose emblem was the industrious honey-bee, and the purpose of whose founders was to combine their ideas of the Kingdom of God with the development of the Mormon community, and to secure to every Saint the unrestricted pursuit of large quantities of domestic happiness. In 1851 the Utah Legislature organized several counties along the eastern slope of the Sierras and on the Rio Colorado, and until 1856–7 there were thriving Mormon settlements in Carson, Eagle, and Washoe Valleys.

STATISTICS.

Settled at	Genoa.
Settled in	1851
Founded by	Mormons.
Admitted to the U. S.,	1864
Population, in 1860,	6,857
In 1870,	42,491
In 1880,	62,266
White,	53,566
Colored,	8,710
American-born,	36,613
Foreign-born,	25,653
Males,	42,019
Females,	20,247
In 1890 (U. S. census),	45,761
Population to the square mile,	0.6
Voting Population (in 1880),	31,255
Vote for Harrison (1888),	7,229
Vote for Cleveland (1888),	5,326
Net Public Debt,	None.
Assessed Valuation of Property (1890),	$25,000,000
Area (square miles),	110,700
U. S. Representatives (1893),	1
Militia (Disciplined),	565
Counties,	14
Post-offices,	156
Railroads (miles),	925
Manufactures (yearly),	$1,323,000
Farm Land (in acres),	530,862
Farm-Land Values,	$5,408,325
Average School Attendance,	5,149
Newspapers,	25
Latitude,	35° to 42° N.
Longitude,	114° to 120° W.
Temperature,	—40° to 115°
Mean Temperature,	55°

TEN CHIEF PLACES AND THEIR POPULATIONS. (Census of 1890.)

Virginia City,	8,511
Carson City,	3,950
Reno,	3,563
Eureka,	1,609
Austin,	1,215
Tuscarora,	1,156
Winnemucca,	1,037
Pioche,	676
Mason Valley,	577
Dayton,	576

While Nevada remained a part of Utah, and prior to the discovery of silver, there was little or no inducement for settlement within her borders, and although the overland army of

LAKE TAHOE.

gold-seekers made an almost continuous line across the continent, the first mail line between Sacramento and Salt-Lake City (750 miles) was not established until 1851. A single mule sufficed for the transportation of the monthly mail. This primitive conveyance for carrying letters was confiscated by a Shoshone Indian, who at the same time added the scalp of the carrier to his collection of curiosities. In winter a Norwegian, known far and wide as "Snowshoe Thompson," carried the mails across the Sierras, and his ten-foot snow shoes were gifted with the departmental requirements of "certainty, celerity and security." Crandall's Pioneer Stage Line from Placerville to Genoa began running in 1857; and the first overland mail stage arrived in 1858. In 1860 the Pony Express was established.

In 1858 the black lumps which bothered the few gold-washers in Gold-Hill Gulch and the cañon at the base of Mount Davidson, were assayed by two miners named Grosch, who possessed some knowledge of metallurgy, and pronounced to be rich sulphurets of silver. The following year the rush to Washoe fairly commenced. Early in 1861 Congress organized the Territory of Nevada, out of Utah, west of 150°.

In the vigorous and picturesque language of the Hon. Thomas Fitch, of Reno: "It is difficult even for one who was himself a part of the times of which he writes to give an adequate idea of life in Nevada in 1862-4. Over 50,000 of the brightest, bravest, most generous, enterprising and energetic men on earth, the Knight Paladins who challenged the brute forces of Nature to combat, the soldiers who, possessed with the *aura sacra fames*, faced the storm and the savage, the desert and disease, swarmed around the base of Mount Davidson and reached out to Aurora, to Reese River and to the mountains of the Humboldt. Crawling like huge flies over the bald skulls of lofty mountains, plodding across alkaline deserts which pulsed with deluding mirages under the throbbing light, camping amid rocks worn out in the conflicts of chaos, and thrown away upon the world, smiting with pick and hammer the adamantine doors of the earth's treasure-chambers, these pioneers engaged in their self-imposed task. Readier with rifle or revolver than with scriptural quotation was the Nevadan of those days, and readier still with his "coin-sack" at the call of distress. Under the blue shirt might be found sometimes a graduate of Yale, and sometimes a fugitive from Texas. No man assumed to be better than his neighbor, and no man conceded his inferiority to anybody. Freiberg graduates and sheep-herders, divinity students and Cornish miners, farmer boys and ex-judges of the Supreme Court were all treasure-seekers together, and a blow of a pick might make or unmake fortunes, and equalize the beggars and the princes of this Aladdin's cave. Some found fortunes and some found unmarked graves upon the hillsides, and many have since become rich or renowned in other fields, but not one among them all will not remember with affection the days way back 'in the sixties,' when he spun the woof of rainbows in the Sage-brush State."

PYRAMID LAKE.

By 1861 quartz mills were erected and machinery transported across the mountains, and the white metal commenced to pour in vast and increasing volume into the channels of the world's commerce, sustaining the credit of the Nation in the hour of its peril.

During the recent civil war the sentiment of the people of Nevada was overwhelmingly unionist. The Territory raised six companies

of infantry and six companies of cavalry, numbering 1,180 men. Since the depreciation of silver, Nevada has lost greatly in population, and seems to present the strange anomaly of a dying American State. Its main hope seems to be in the remonetization of silver, and a consequent new life in the mining districts, or else in the development of great irrigation systems.

SODA LAKE.

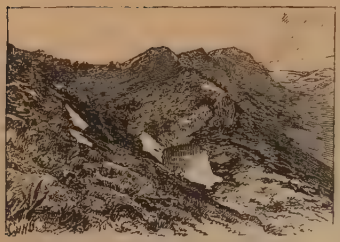
The Name of the State comes from its magnificent Western frontier. From their resemblance to the serrated chain of Spanish Granada, these mountains are called the Sierra Nevada, or "Mountains Snowy," although the snow-fall, except on the high ranges, is not great, and thermometrical reports show that Nevada possesses about the same winter climate as Baltimore, and a summer climate analogous to that of Nova Scotia. The popular names of Nevada are THE SILVER STATE, from its chief product: *The Sage-Brush State*, because the valleys and hills are covered with the wild artemisia; and *The Battle-Born State*, commemorating its admission to the Union during the Civil War.

The Arms of Nevada include a railway train in a mountain gorge; a plow, sheaf and sickle; two mountains, with a quartz-mill, a tunnel to the silver leads, a miner running out a car-load of ore, and a team loaded with ore for the mill. In the background are snowy mountains, with the sun rising. The motto is: *All for our Country.*

The Governors of Nevada have been: *Territorial:* Jas. W. Nye, 1861–4. *State:* Jas. W. Nye (acting), 1864; Henry G. Blasdel, 1864–71; L. R. Bradley, 1871–9; J. H. Kinkead, 1879–83; J. W. Adams, 1883–7; C. C. Stevenson, 1887–91; and Ross K. Colcord, 1891–5.

Descriptive.—Nevada occupies a part of the great interior basin between the Rocky Mountains and the Sierra Nevada, in which the rainfall is generally confined to the months between November and May, thus rendering agriculture (except in the narrow valleys along the streams) uncertain, and therefore unprofitable, save where facilities exist for irrigation. Nearly a hundred mountain ranges traverse the plateau, some of them reaching a length of 100 miles and a height of from 9,000 to 12,000 feet, and generally trending north and south. These ridges are covered rather sparsely with piñon or nut-pine, and occasional groves of white-pine, with some oak and cedar and locust; and along the streams may be found cottonwoods. The ranges are from six to 20 miles wide, and long valleys of similar width separate them, occasionally broken by solitary buttes, or expanding into broad basins covered with sage brush, sand-grass, cacti, mesquite and greasewood. There are millions of acres of sage-brush land, the soil of which is rich in plant-food and abounding with elements of fertility, but which, in the absence of facilities for water storage and distribution, have always been classed as arid and useless. The Great Basin is supposed to have once formed part of a sea of several hundred thousand square miles in area, and when the ocean water drained off, the great plateau remained, 4,500 feet above the tide. The Colorado River flows along the southeastern border for 150 miles, a rapid and powerful stream, half a mile wide, and navigable under favoring circumstances from Rioville to the Gulf of California. The El-Dorado Cañon is twelve miles long and 200 to 600 feet deep, and the great river rushes through it with tremendous speed. Aside from the Rio Virgen and two creeks (tributaries of the Colorado) in the southeast, and the Owyhee and Bruneau (tributaries of the Snake River) in the northeast, all the rivers of Nevada lose themselves in the sandy soil of the valleys, or empty into sinks, some of

WINNEMUCCA LAKE.



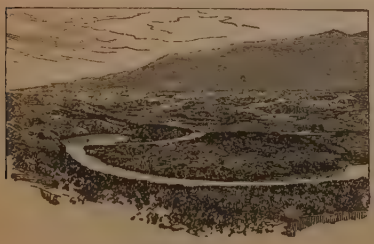
HUMBOLDT MOUNTAINS: GLACIER CANON.

which are stagnant and alkaline, while others remain fresh and sweet, being probably drained by underground rivers. Thus the rapid Truckee, flowing from Lake Tahoe and Lake Donner, high up in the Sierras, discharges into Pyramid Lake after a course of 97 miles, through spruce and pine forests for half the distance and through meadow lands for the remainder. Walker River rushes cold and clear from the Sierra, and feeds the mountain-walled Walker Lake, 30 miles long and five to 15 miles wide (350 square miles) and abounding in fish. Carson River issues from lakes in the Sierra, and winds 200 miles, part of the way through cañons and pine forests, and part of the way over sage-brush plains, to the Carson Sinks, which are ordinarily 25 by ten miles in area, and in the wet season achieve a length of 80 miles. The Humboldt rises in the Goose-Creek Range, and flows southwesterly 350 miles, descending 3,000 feet and continually shrinking in volume, until it reaches its sink, called Humboldt Lake, 30 by ten miles in area. In high water Humboldt Lake runs into the lower Carson Sink, through a long slough. Reese River, in central Nevada, is swallowed by the thirsty land after a course of 140 miles; Quinn River after 80 miles, and the Amargosa River after 150 miles.

IN THE HUMBOLDT MOUNTAINS.

Pyramid Lake is 35 by twelve miles in area, 4,000 feet above the sea, and in many places of great depth. It is surrounded by high mountains, and marked by a pyramidal rocky island 600 feet in height. Near this lake occurred the disastrous battle of May, 1860, where an attacking force of 105 Nevada volunteers was defeated, with a loss of half their number, by the Pah-Ute Indians. Lake Winnemucca (also a sink), 18 by eight miles in area, lies east of Pyramid Lake. In high water Franklin and Ruby Lakes are united, and form a brackish reservoir 15 miles long. Washoe Lake lies close to the Sierra, and covers an area of 18 square miles. Its waters are shallow and slightly alkaline, though it is filled with small fish called chubs. One third of the beautiful Lake Tahoe lies in Nevada, the remainder being within the borders of California.

The unalkaline lakes and streams contain many trout, and some of them have also been stocked with catfish, perch, bass, terrapin, salmon and salmon trout. Around them beavers and otters dwell; and over the plains roam myriads of jack-rabbits and coyotes, and a few lynxes and cougars, and black, cinnamon and grizzly bears. Antelopes and mountain-sheep haunt the remote highlands; and elk, deer, and moose are sometimes seen. Grouse, or sage-hens, are abundant, wild turkeys are sometimes found on the mountains, quail are plentiful, and the sinks and lakes swarm with wild geese, ducks, plover and every variety of water-fowl.



HUMBOLDT VALLEY.

North of Pyramid Lake is the Black-Rock Desert, or Mud Lakes, a tract of nearly 1,000 square miles, in summer a barren level of alkali, and in winter covered in places with shallow water. There are many other "mud" lakes in Nevada, in basin-shaped valleys of impervious stiff clay.

The Climate is remarkably dry and healthful, and meat may be cured in the open air. The clouds from the Pacific are broken upon the mountains, which receive a much larger rainfall than the

valleys; and fogs are unknown. In summer the thermometer rarely rises above 95°, and the nights are cooled by mountain breezes. The winter temperature hardly ever reaches zero on the plains. In the east cloud-bursts are of frequent occurrence; in the west strong southwest winds prevail. In the south the mean annual temperature is 70°, with a yearly rainfall of five inches; in the north and west the temperature is 55°, and the rainfall 15 inches. On the plains mirages often spread their delusive pictures, and sandstorms and whirling sand pillars sometimes bring discomfort to the traveller. Pulmonary and bronchial troubles and asthma are almost unknown, for the air is so pure and dry that it acts as an antiseptic.

HYDRAULIC MINING.

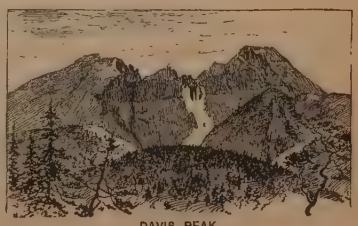
Farming.—By the construction of storage reservoirs in natural mountain basins, and of irrigating canals, Nevada may be made a prosperous agricultural State; but much of the land is now unoccupied, and to the superficial observer arid. In the irrigable valleys of the west now under cultivation, barley, wheat and oats are the chief cereal crops. The root vegetables, especially potatoes, are prolific in yield. Honey is made in considerable quantities, and the dairy products are growing in extent. There are 300,000 apple trees, and a great number of almond, pear, peach, and plum trees, all of which bear excellent fruit. Berries and small fruits grow luxuriantly.

HUMBOLDT RANGE: ARCHÆAN BLUFFS.

There are 300,000 sheep and 200,000 cattle in Nevada, in a climate free from all blizzards and pestilent heats. San Francisco is the market for the local beef and mutton.

Minerals.—Nevada has 120 surveyed localities of mineral springs, hot and cold, salt and borax, sulphur and iron, some of them containing infusions of arsenic, mercury and other minerals as well. Steamboat Springs, eleven miles south of Reno, are a series of hot fountains, with puffs and jets of steam continually leaping from crevices in the rocks. The temperature is 212°. At Elko the water of the hot springs has a singular resemblance in taste to chicken broth. At Carson, at Lawton's, and on the Truckee River and at other points large swimming-baths of stone have been constructed. In Smoky Valley a caldron-like boiling spring rushes from the earth. Hot Creek is the steaming outlet of a group of thermal springs in Nye County. Hinds' Hot Springs, ten miles from Wellington's, the hot springs east of Wadsworth, and the Golconda, Kyle's, Bruffy's and Shaw's hot springs are well known to Nevadans. Many of these properties are improved by hotels and cottages for health-seekers, which receive patronage from well-to-do citizens of Nevada.

Bullion is the chief product of Nevada, which has sent out over $600,000,000 in silver and gold. In 1877–8 alone the product was $87,000,000. The bullion produced on the Comstock is in proportion of value about two thirds of silver and one third of gold. Above $350,000,000 have been shipped from the Comstock lode, of which the famous California and Consolidated-Virginia mines yielded $130,000,000. After 1875 the mines became less productive. The ores are chlorides and sulphurets. The Sutro


DAVIS PEAK.

PLIOCENE BLUFFS.

Tunnel, 12,000 feet long, drains the mines to a depth of 1,600 feet. The hoisting works over the mines are the largest and most complete in the world. After the apparent exhaustion of the Comstock bonanzas, thousands of men left Nevada. In 1886–8, new and valuable deposits were uncovered, and improved methods were devised, which permitted the working of the low-grade ores. The bullion-product of the State was $9,000,000 in 1886, $10,200,000 in 1887, and $12,306,000 in 1888. The deposits of gold, silver, copper and lead in the interior mountains have been mined with success.

Salt appears in many localities, and near the Rio Virgen forms a ridge two miles long and 100 feet thick, of pure, hard and transparent salt. There are thousands of acres of salt beds, of great depth, and white as snow. The soda lakes of Churchill County produce great quantities of soda. Borax is produced in the same vicinity, and in Esmeralda County is found in inexhaustible marshes and lakes. The mineral wealth of Nevada includes the pure sulphur of Humboldt, coal of Pancake Mountain, cinnabar of Washoe, copper of Lander and White Pine, antimony, arsenic, cobalt and nickel of Churchill; nitre, isinglass, manganese, alum, kaolin, iron and gypsum of Lyon; mica of Elko, and graphite of Grimsby.

The Governor and executive officers are elected every four years. The Legislature contains 18 four-years' senators and 36 two-years' assemblymen. The Supreme Court has three elective justices; and there are nine elective district judges. The State House is at Carson City, in Eagle Valley, and contains the State Library, of 22,000 volumes. It stands on a shady grassy square of four blocks. The finest building in Nevada is that belonging to the United States, at Carson City. The State Prison is near Carson; the Insane Asylum (163 inmates), at Reno; and the State Orphan Home, at Carson City. The State school-fund exceeds $1,100,000. The Nevada State University, founded in 1874, is at Reno, and has seven teachers and 115 students. The Agricultural Experiment Station is at Reno. Nevada contains 9,000 Indians, one tenth of whom can speak English; 4,500 are Pah-Utes, 300 Piutes, 4,200 Shoshones, and 500 Washoes. One third of them are on the Pyramid-Lake, Walker-River, Duck-Valley and Moapa-River Reservations.

The Railroad System of Nevada began in 1867, when the first locomotive entered the State, running from the California side to Crystal Peak. The value of Central Pacific Railroad property in Nevada is $50,000,000, the length being 448 miles. The railway from Carson City to Virginia City was built in 1868 and extended to Reno in 1871–2. The Nevada Central, from Battle Mountain to Austin, 93 miles, dates from 1879–80. The Eureka & Palisade line is 90 miles long. The Carson & Colorado Line runs from near Carson 298 miles south to Keeler; and the Nevada & Oregon road runs from Reno.

The Chief Towns, near the foot of the Sierra, are Virginia City, with its great gold and silver mines; Carson City, the capital, and an important supply-depot; and Reno, at the junction of three railways, with flouring-mills, saw-mills, and reduction-works. Virginia City and Gold Hill had 35,000 inhabitants in 1880, with metropolitan institutions, but subsequently fell away. Virginia City is 6,339 feet above the sea, Belmont is 8,092 feet, Treasure Hill 9,077 and Barcelona City, 10,480. Austin and Eureka are important silver-mining towns.

VIRGINIA CITY.

HISTORY.

New Hampshire's aborigines were the friendly Penacooks, dwelling along the Merrimack; the Coös, along the Connecticut; the Pequawkets, on the upper Saco; the Ossipees; and several smaller tribes, confederated against the Mohawks, under the wizard-sachem Passaconaway, whose son and successor, Wonnolancet, kept most of them neutral during King Philip's War. The gallant English sailor, Martin Pring, explored the silent coast in 1603, followed by Champlain and Capt. John Smith. In 1622, the Plymouth Company (of England) granted the territory of Laconia, from the Merrimack to the Kennebec, to Sir Ferdinando Gorges and Capt. John Mason. The first settlements were made by adventurous fishermen and traders, sent out by English patrons, at Cocheco (Dover) and Little Harbor (near Portsmouth), in 1623. Exeter was founded, in 1638, by the exiled John Wheelwright; and the first house at Hampton rose in 1636. In 1641, these four colonies were united to Massachusetts, and in 1679, New Hampshire became a royal province. John Mason's heirs and their claims caused annoyance, until 1746, when twelve Portsmouth gentlemen bought them out. The colony suffered under merciless Indian forays, from soon after King Philip's War, when five towns were attacked in succession, down nearly to the Revolution. Dover, Durham, Exeter, Rye and all the outlying settlements met the fury of the pagan assaults, which were oftentimes reinforced by detachments of French and Canadian troops. Hundreds of settlers were slain, and many others passed into a dreary captivity, in Canada; but naught availed to check the advance of the pioneers, who moved forward into the Lake-country, and through the mountain-passes, and occupied the fertile valley of the Connecticut. In the Louisburg and Ticonderoga campaigns, New Hampshire's sons distinguished themselves on many a hard-fought field. The State sent 18,289

STATISTICS.

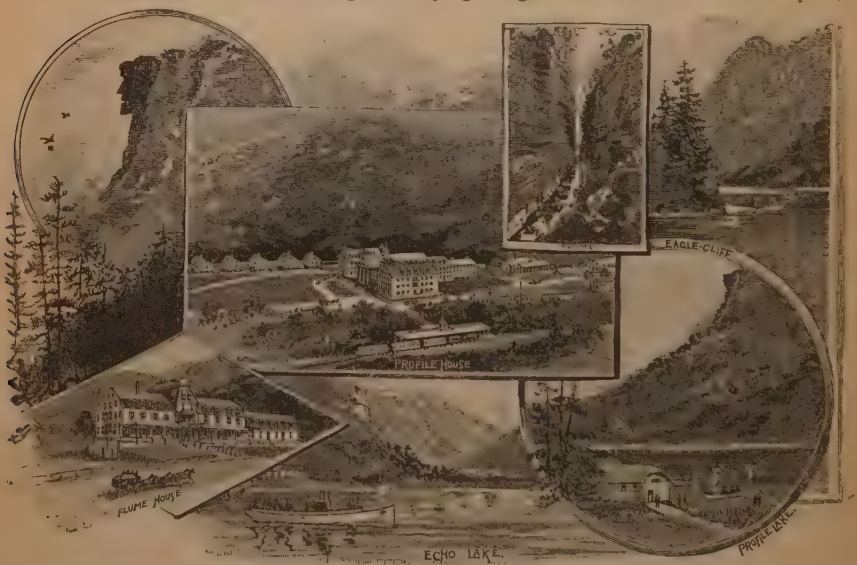
Settled at	Dover.
Settled in	1623
Founded by	Englishmen.
One of the Original 13 States.	
Population in 1860,	326,073
In 1870,	318,300
In 1880,	346,991
White,	346,229
Colored,	762
American-born,	300,697
Foreign-born,	46,294
Males,	170,526
Females,	176,465
In 1890 (U. S. Census),	376,530
Population to the square mile,	38.5
Voting Population (1880),	105,138
Vote for Harrison (1888),	45,728
Vote for Cleveland (1888),	43,456
Net State Debt,	$2,639,706.55
Real Property,	$117,000,000
Personal Property,	$130,000,000
Area (square miles),	9,305
U. S. Representatives (1893),	2
Militia (Disciplined),	1,105
Counties,	10
Post-offices,	538
Railroads (miles),	1,145
Vessels,	65
Tonnage,	10,148
Manufactures (yearly),	$73,978,028
Operatives,	48,831
Yearly Wages,	$14,814,793
Farm Land (in acres),	3,721,173
Farm-Land Values,	$75,834,389
Farm Products (yearly)	$13,474,330
Public Schools, Average Daily Attendance,	43,484
Newspapers,	152
Latitude,	42°42′30″ to 45°18′ N.
Longitude,	70°43′40″ to 72°33′ W.
Temperature,	—49° to 94°
Mean Temperature (Concord),	46°

TEN CHIEF PLACES AND THEIR POPULATIONS. (Census of 1890.)

Manchester,	44,126
Nashua,	19,311
Concord,	17,004
Dover,	12,790
Portsmouth,	9,827
Keene,	7,446
Rochester,	7,396
Somersworth,	6,207
Laconia,	6,143
Claremont,	5,565
Exeter,	4,234

soldiers into the Revolution, of whom 12,496 were in the Continental Line. In the recent great civil war she was represented by 20 regiments and twelve companies and batteries, numbering 33,937 men, of whom nearly 5,000 died in the service. Between 1850 and 1890 the losses by the war and by emigration checked the development of the State, and left much of the hill-country in a desolate and deserted condition. In the meantime the prosperous manufacturing cities along the Merrimack have risen to great power and prominence; and the State has become celebrated also for its beautiful summer-resorts.

Thoreau thus pictures the scenery of the Merrimack River: "At first it comes on murmuring to itself by the base of stately and retired mountains, through moist, primitive woods whose juices it receives, where the bear still drinks it, and the cabins of settlers are far between, and there are few to cross its stream; enjoying in solitude its cascades still unknown to fame; by long ranges of mountains of Sandwich and Squam, slumbering like tumuli of Titans, with the peaks of Moosilauke, the Haystack, and Kearsarge reflected in its waters; . . . to Plum Island, its sand ridges scalloping along the horizon like the sea-serpent,



WHITE-MOUNTAIN SCENERY AND THE PROFILE HOUSE.

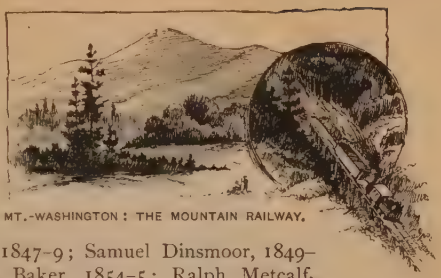
and the distant outline broken by many a tall ship, leaning, *still*, against the sky. . . . Standing at its mouth, looking up its sparkling stream to its source,—a silver cascade which falls all the way from the White Mountains to the sea,—and behold a city on each successive plateau, a busy colony of human beavers around every fall."

The Name of the State was given by its first proprietor, Capt. John Mason, for many years governor of South-Sea Castle, on the coast of English Hampshire (Hants). Its popular pet name is THE GRANITE STATE, referring to its noble rocky peaks.

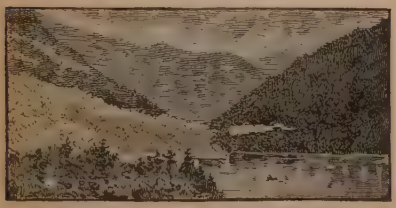
The Arms of New Hampshire, adopted in 1784, show a rising sun and a ship on the stocks, with American banners displayed.

The Governors since 1754 have been: Benning Wentworth, 1754-67; John Wentworth, 1767-75; Meshech Weare, 1776-85; John Langdon, 1785-86; John Sullivan, 1786-8; John Langdon, 1788-9; John Sullivan, 1789-90; Josiah Bartlett, 1790-4; John Taylor Gilman, 1794-1805; John Langdon, 1805-9; Jeremiah Smith, 1809-10; John Langdon, 1810-12;

Wm. Plumer, 1812–13 and 1816–19; John Taylor Gilman, 1813–16; Samuel Bell, 1819–23; Levi Woodbury, 1823–4; David Lawrence Morrill, 1824–7; Benjamin Pierce, 1827–28; John Bell, 1828–9; Matthew Harvey, 1830–1; Joseph M. Harper, 1831; Samuel Dinsmoor, 1831–4; Wm. Badger, 1834–6; Isaac Hill, 1836–9; John Page, 1839–42; Henry Hubbard, 1842–4; John H. Steele, 1844–6; Anthony Colby, 1846–7; Jared W. Williams, 1847–9; Samuel Dinsmoor, 1849–52; Noah Martin, 1852–4; Nathaniel B. Baker, 1854–5; Ralph Metcalf, 1855–7; Wm. Haile, 1857–9; Ichabod Goodwin, 1859–61; Nathaniel S. Berry, 1861–3; Joseph Atherton Gilmore, 1863–5; Frederick Smyth, 1865–7; Walter Harriman, 1867–9; Onslow Stearns, 1869–71; James A. Weston, 1871–2 and 1874–5; Ezekiel A. Straw, 1872–4; Person C. Cheney, 1875–7; Benj. F. Prescott, 1877–9; Natt Head, 1879–81; Chas. H. Bell, 1881–3; Samuel W. Hale, 1883–5; Moody Currier, 1885–7; Chas. H. Sawyer, 1887–9; David H. Goodell, 1889–91; Hiram A. Tuttle, 1891–3.


MT.-WASHINGTON: THE MOUNTAIN RAILWAY.

Descriptive.—New Hampshire lies between Maine and Vermont, with Massachusetts on the south, a wilderness fronting on Canada, and beaches facing the Atlantic. Its middle part is serrated by the White Mountains, covering 1,300 square miles, in several short ranges, largely clad with primeval forest, the main peaks rising above the timber-line, and crowned with storm-worn rocks. The magnificent scenery of this highland country has for generations been admired by myriads of tourists from all over the world. Several railways traverse its noble notches; and great hotels and summer-resort villages, Bethlehem, North Conway, Jackson, Jefferson, and Campton, have grown up in the vicinity. There are seven peaks above 5,000 feet high, 22 above 4,000, and scores of lesser elevations. Mount Washington, 6,293 feet high, and overlooking thousands of square miles, has a carriage-road ascending its huge rocky slopes, and a large hotel and other buildings on its summit. The first cog-rail mountain-railway in the world was constructed up this peak in 1868–9. The powerful little humpbacked locomotives push trains up a height of 3,730 feet in a course of less than three miles, the highest grade being 13½ inches in a yard. In the Presidential Range, "the Crown of New England," tower the majestic peaks of Mounts Washington, Adams, Jefferson, Madison, Monroe, Jackson and others. They were called by the Indians *Waumbek Methna;* and by the colonists, who explored them as early as 1642, *The Crystal Hills.* The White-Mountain Notch is a wonderful defile of several miles in length, cut deep through these highlands, and giving passage to the turnpike and the Maine Central Railroad, on its way from Portland to Montreal and the West. This forms one of the most magnificent scenic routes in America. The Franconia Range culminates in Mount Lafayette, 5,299 feet high; and in the Franconia Notch, 1,200 feet above the road, is the famous Profile, a massive stone face 40 feet high, which has figured in New-England art and literature for nearly a century. Moosilauke (4,810 feet),


FRANCONIA NOTCH, WHITE MOUNTAINS.

LAKE WINNEPESAUKEE, FROM OSSIPEE PARK.

NEWFOUND LAKE.

Chocorua (3,508), Kearsarge (2,943), Grand Monadnock (3,169), and other outlying mountains are notable features of the landscape. The beautiful pastoral valleys of the Saco, Androscoggin and Pemigewasset penetrate the great mountain-mass for many leagues, affording natural avenues for railways, and jewelled with pleasant hamlets.

ISLES OF SHOALS: WHITE ISLAND.

Another marked feature of New Hampshire, and one of its foremost beauties, is an extensive and varied system of lakes, rich in wooded islets, and mirroring the crests of famous mountains. The foremost of these is Lake Winnepesaukee, covering 72 square miles, and adorned by 274 islands. The Ossipee, Sandwich and Belknap ranges look down on this lovely crystal sheet. Near by is Asquam Lake, unrivalled for its mountain-guarded beauty. Sunapee (11 square miles), Newfound (8), Umbagog (18), Ossipee (7), Spofford, Mascoma, Massabesic, and other lakes are popular resorts in summer. Sunapee Lake, 1,100 feet above the sea, under the forest-clad peaks of Kearsarge and Sunapee, abounds in islands and beaches, summer-villages and camps, and a great variety of valuable fish.

MANCHESTER:
1. AMOSKEAG FALLS.
2. POST-OFFICE.
3. SOLDIERS' AND SAILORS' MONUMENT.

The Connecticut River, New England's foremost stream, rises in a group of lakelets near the Canadian frontier, and runs south for 450 miles through a valley of extraordinary beauty and fertility. The Pemigewasset and the Winnepesaukee unite to form the Merrimack, which flows for 78 miles in New Hampshire and 35 in Massachusetts, turning more mill machinery than any other river in the world. The Piscataqua is a broad, deep and swift estuary, eleven miles long, entering the sea at Portsmouth, where it forms one of the best harbors on the American coast, with 40 feet of water at low tide, and a rocky bottom. On the Maine side, at Kittery, is the United-States Navy-Yard. The other notable streams are the Upper and Lower Ammonoosuc, Ashuelot, Androscoggin, Contoocook, Saco, and Suncook. These rivers are mainly mountain-born, and therefore subject to sudden floods. Their waters are singularly pure, and abound in salmon, trout, bass and other fish, millions of which are distributed every year, by the State, for development. The Plymouth and Sunapee hatcheries have sent out vast numbers of brown, rainbow and Loch-Leven trout, the choicest species of the fish. The State has 325 fish and game wardens, whose vigilance has caused the remoter towns to become populated with deer.

ISLES OF SHOALS: STAR-ISLAND CHURCH.

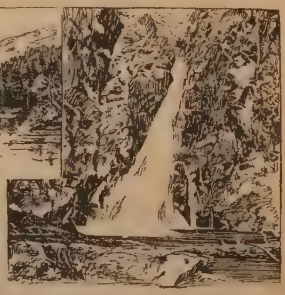
Broad expanses of primeval forest still enwrap the lonely northern counties with great pines, oaks, birches and other trees. Bears and wolves and moose roam through these unbroken woods, which are rarely traversed, save by explorers and hunters. The lumber business has

CONNECTICUT RIVER, NEAR HANOVER.

attained considerable importance in the north, and the mills at Whitefield and Zealand, Berlin, Livermore and Lancaster have many miles of steam-railways, bringing out of the forests over 40,000,000 feet of logs yearly.

The sea-coast of 18 miles includes the beaches of Hampton and Rye, well-known as summer-resorts, backed by the long levels of the tidal marshes. Six miles off-shore, in the open sea, rise the rocky little Isles of Shoals, discovered by Champlain in 1605, occupied by villages of fishermen for over two centuries, and now the seat of large summer-hotels. They cover 600 acres, and partly pertain to Maine. Steamboats run out hither several times daily, in summer, from Portsmouth. New Hampshire has several mineral springs, with attendant hotels and summer clientages.

SUNAPEE LAKE.



GLEN-ELLIS FALLS, WHITE MOUNTAINS.

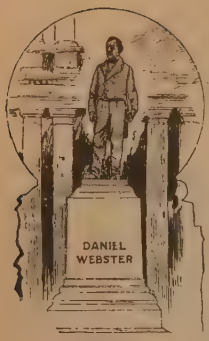
The choicest scenic localities amid the White and Franconia Mountains are occupied by large and luxurious summer-hotels, which are filled during the summer by guests from all parts of the Union. None of these delightful pleasure-resorts occupies a higher place in the public esteem than the famous old Profile House, the largest summer-hotel in New England, whose proprietors, Taft & Greenleaf, have been connected with it for 30 consecutive years. Just where the Franconia Notch reaches its northern end, and before the road begins its steep descent to the valley, there is a beautiful little plateau, 2,000 feet above the sea, surrounded on three sides by the stupendous cliffs of Mount Lafayette and Cannon Mountain. Here, between the translucent Echo Lake and Profile Lake, rise the white walls of the Profile House, fronting on broad lawns and flanked by handsome cottages. The wonderful Profile, or Old Man of the Mountain, undoubtedly the most remarkable rock-formation in this country, if not in the world, is seen from near the hotel. All the surrounding region abounds in charming drives and rambles. Nowhere else in the New-Hampshire mountains is there such a museum of unrivalled curiosities as that which may be explored in these two leagues of the great Franconian pass.

The Government includes a biennially elected governor and council and executive officers; and the General Court of 24 senators and over 300 representatives. The Supreme Court has seven justices. The State House, at Concord, was built in 1816–9, and enlarged in 1865. It is in classic architecture, of Concord granite, and stands in a pleasant park. The Doric Hall contains the battle-flags of the volunteer regiments of 1861–5. The Council Chamber has portraits of all the governors since 1786, and there are many large portraits of Revolutionary generals and other ancient worthies. The State Prison at Concord was established in 1812, and has 110 convicts. The Asylum for the Insane (founded in 1842) is also at Concord, and has 340 inmates. The Industrial School for boys and girls is near Manchester. The Orphans' Home and School of Industry occupies the ancestral Webster farm, near Franklin, and is generously supported by private contributions.

NEW CASTLE: OLD WENTWORTH MANSION.

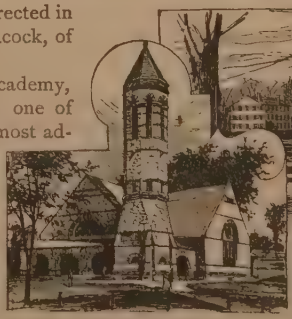
The National Guard includes three regiments of infantry. There is also a troop of cavalry and a battery. The State camp-ground, where these troops are quartered and drilled for seven days yearly, is on the bluffs opposite Concord.

Education.—The Normal School, at Plymouth, with nine instructors and 275 students, is the head of the State school-system. The old



CONCORD: STATUE OF DANIEL WEBSTER.

district-schools gave way, in 1885, to the town system, intended to afford better facilities to students in remote neighborhoods. The State spends over $700,000 a year in educating its young people. Nearly one tenth of the children are in Catholic parochial schools. There are also 53 academies, with 3,112 pupils. Dartmouth College, at Hanover, on the Connecticut River, was founded in 1769 by the Rev. Eleazer Wheelock, as a school for missionaries and Indians. It received 44,000 acres of land from the Province, and large gifts from English philanthropists, among whom was Lord Dartmouth. The huts of green logs which at first served as the college-halls have been replaced by ten buildings, of which Wilson Hall and the Rollins Chapel are notable for their beautiful architecture. The College Park covers 34 acres. Daniel Webster, Rufus Choate, George Ticknor, George P. Marsh, Salmon P. Chase and Thaddeus Stevens were among the 7,000 graduates. The college has 229 students, besides 67 in the Chandler School of Science, 68 in the Medical School (founded in 1797), 10 in the Thayer School of Civil Engineering, and 33 in the College of Agriculture and the Mechanic Arts, which occupies a contiguous farm of 360 acres. One of the most attractive features in Hanover is the new Mary Hitchcock Memorial Hospital, erected in 1890 by Hiram Hitchcock, of New York.



ROLLINS CHAPEL.

HANOVER: DARTMOUTH COLLEGE.

Phillips Exeter Academy, founded in 1781, is one of the most noted and most admirably conducted college preparatory schools in America, and has graduated more than 6,000 pupils, including a long list of famous statesmen, bankers, and professional and business men. It has ten instructors and 325 students, with fine buildings ranged along an elm-lined campus. Two hundred and seventy-one of the students come from 35 outside States and Territories, besides a number of foreign countries.

The Robinson Female Seminary, also at Exeter, was endowed with $250,000, and opened in 1867. St. Paul's School, two miles from Concord, is an Episcopal institution of rare efficiency, with a seven-years' course, preparing boys for college or business. It was opened in 1856. Chief among its buildings is the large and beautiful collegiate chapel, in late decorated Gothic, with oaken roof, stained windows, and carved stalls and screens. The Holderness School for Boys, another Episcopal institution of high rank, has its seat near Plymouth, in the idyllic Pemigewasset Valley. The New-Hampshire Conference Seminary and Female College is a Methodist school, established in 1845, at Tilton, eighteen miles from Concord. There are good academies at New Hampton, New Ipswich (Appleton), West Lebanon (Tilden), Mont Vernon, Meriden (Kimball Union), Atkinson, Northwood, New London, Wolfeborough, and other

HANOVER: FACULTY AVENUE.

EXETER: PHILLIPS EXETER ACADEMY.

villages. The chief public libraries are those of Dartmouth College, 65,000 volumes; Manchester City Library, 30,000; State Library, 20,000; Portsmouth Athenæum, 16,000; Concord Public Library, 12,000; and the New-Hampshire Historical Society, 10,600.

The newspapers of New Hampshire include 11 dailies and 86 weeklies. There are 13 monthlies. The *Gazette*, of Portsmouth, was established in 1756.

Religious.—The foremost religious denomination is the Congregational, the old historic church of New England, which has here nearly 200 churches and 20,000 members. There are 110 Methodist churches, with 13,000 members. The Baptists and the Free Baptists have each nearly 9,000 members. The Episcopal diocese of New Hampshire numbers 28 parishes, with 2,000 communicants. The Catholic church has more adherents than any one of the Protestant denominations, largely among the French-Canadians and the Irish, in the manufacturing cities. There are Shaker communities at Canterbury and Enfield.

HANOVER: HITCHCOCK MEMORIAL HOSPITAL.

Chief Cities.—Manchester avails itself of the enormous water-power of the Amoskeag Falls, on the Merrimack, and yearly manufactures 70,000 bales of cotton into cloth. Concord is a pleasant little city on the Merrimack, with handsome public buildings. Nashua, also on the Merrimack, is an important manufacturing city and railroad centre. Portsmouth, the only sea-port of the State, and for nearly a century its capital, abounds in quaint old buildings and interesting traditions, and is one of the most delightful cities on the Atlantic coast. Dover, ten miles above, on the Cocheco, has several large factories.

CONCORD; ST.-PAUL'S SCHOOL CHAPEL.

The Railroads had 92 miles of track in 1844. Since that date upwards of 1,200 miles have been built, at a cost of $35,000,000. The Boston & Maine Railroad crosses the seaboard section of the State with several lines, reaching also inland to Lake Winnepesaukee and the White Mountains, and through the pleasant hill-country towards Dublin and Keene. The route from Boston to Montreal ascends the Merrimack Valley to Franklin, and then diverges towards Vermont. The Maine Central line, from Portland to Lake Champlain, traverses the heart of the White Mountains; and the Grand Trunk line, from Portland to Montreal, winds through the mountain-land by the Androscoggin Valley.

The railway up Mount Washington was the first mountain-railway in the world, and is a wonderful triumph of engineering. The line of the Maine Central Railway, through the Notch, is carried along galleries cut into the sides of the mountains, at a vast elevation above the valley, and commands amazing views of the Presidential Range. The most impressive of these is from near the Frankenstein Trestle, whence the majestic Mount Washington is seen at the head of the lonely glen. The Maine Central finished a new line in 1891, from near the Twin-Mountain House and Whitefield, to the lofty summer-resort village of Jefferson, and

CONCORD: RAILWAY STATION.

SUGAR-RIVER BRIDGE.

thence northward across the Grand Trunk route, and through the Upper Coös country, connecting with the line for Quebec. The railway bridges over Sugar River and Salmon-Falls River are notable constructions of the Boston Bridge Works.

Commerce.—The maritime commerce of New Hampshire, centering at Portsmouth, in ancient times included large shipments of lumber and fish to England and the West Indies, but the wars of 1776 and 1812 destroyed this industry. The State has coasting and fishing fleets and 25 small steamboats.

The Finances of New Hampshire stand in a favorable condition, the yearly treasury receipts exceed $1,300,000, of which $500,000 comes from the State tax levy assessed upon the towns, $540,000 from the tax placed upon all savings-banks deposits, and $240,000 from the railroad tax. The average rate of local taxation is $1.48 on $100. According to the new census the net debt of the State has decreased from $3,574,846 in 1880 to $2,639,707 in 1890. Among the financial institutions of New Hampshire, the First National Bank of Concord occupies the position at the head of the list. Chartered in 1864 with a capital of $150,000, it has always paid good dividends to its stockholders, and accumulated during the first 20 years of its existence a surplus equal to its capital. Under the prudent and conservative management of its officers, and especially the well-directed efforts of William F. Thayer, the president of the bank, it promises long before the expiration of its charter to again double the market-value of its stock. The bank enjoys the business of corporations and individuals who seek the services of a safe and reliable depository, and also markets a choice line of investment securities for investors. The First National Bank outgrew its original building, and in 1891 occupied new and more commodious quarters, better adapted to its needs and the convenience of its customers.

CONCORD: FIRST NATIONAL BANK.

Insurance was the subject of State legislation in 1885, as a result of which 58 outside companies concertedly withdrew from business here, the State aiming to compel the companies to pay the full amount insured under all policies in case of total loss, regardless of the value of the property. Their risks were largely taken by home companies, which built up a valuable local business, insuring over $50,000,000 worth of property in a single year. The representative insurance corporation in this State is the New-Hampshire Fire-Insurance Company, under the presidency of ex-Governor James A. Weston, and secretaryship of John C. French, and holding a foremost rank among the strong, solid and successful American companies. The headquarters is in the company's own fire-proof building at Manchester; and agencies are in successful operation in many cities of the Middle and Western States. The liabilities are in small risks, well scattered; and the assets rest in undoubted securities, and real-estate mortgages, guarded by directors of acknowledged ability and integrity, and including some of the foremost men of the State. This company was incorporated in 1869, and has a capital of $600,000, gross assets of $1,500,000, and a surplus, as regards policy-holders, exceeding $1,000,000. It has paid over $3,000,000 in losses. The

MANCHESTER: N. H. FIRE-INSURANCE CO.

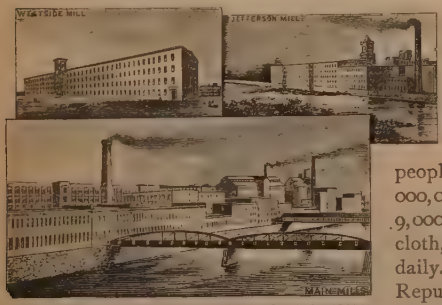
SALMON-FALLS BRIDGE.

risks in force amount to about $75,000,000. The singular position assumed by this State with regard to outside insurance companies, differing so far from the conduct of other commonwealths, has been rightly questioned, especially so as she has no other solid corporation like the New-Hampshire Fire-Insurance Company, to afford her citizens absolute protection against loss by fire. There are now 12 stock fire-insurance companies, and 10 cash-mutual and 25 assessment-mutual companies, with $71,000,000 of risks in force in the State, and $104,000,000 outside. The factory-mutuals protect $42,000,000, and $8,000,000 remain on unexpired outside policies.

Agriculture is not at its best in this land of eight cold months. The high sandy plains along the Merrimack, and some of the lofty uplands, are unfavorable for farmers, but the alluvial valleys of the Connecticut and other streams produce good crops. Of late years much attention has been paid to dairy farming, and 1,500,000 pounds of butter are sent out from the creameries annually. The breeding of fine horses and cattle is a feature of recent introduction. One hundred and twenty-two granges are in operation, with 8,500 members. There are usually three or four months of sleighing, with deep and fructifying snows, especially in the north, and a clear, bracing air. The month of June is full of beauty, and adorns the country with floral splendor. The Indian summer, in September and October, is a delightful period of mild temperature and sweet air, with bright and luminous skies.

Manufactures employ a capital of above $50,000,000, and pay yearly wages to the amount of $15,000,000. The first cotton-mill dates from 1804, and since that time the industry has developed amazingly. Between 1850 and 1890 the invested capital increased 300 per cent., and the value of the yearly product increased 320 per cent. There are great mills at Manchester, Nashua, Dover, Laconia, Suncook and other towns, all of which also have prosperous and varied manufacturing interests.

The Amoskeag Manufacturing Company at Manchester, the largest cotton-manufacturing company in New England, commenced operations about 50 years ago.



MANCHESTER: AMOSKEAG MANUFACTURING COMPANY.

It has twelve large and complete mills, besides dye-houses, store-houses, boiler-houses, machine-shop, and foundry, covering over 60 acres of floor-space. The mills give employment to more than 7,000 people, and have a yearly pay-roll of nearly $3,000,000. They contain 250,000 spindles and 9,000 looms, and produce daily 300,000 yards of cloth, during the ten hours that the mills run daily. These fabrics are sent to all parts of the Republic, and to many remote lands beyond the ocean. To make this quantity of cloth requires 900,000 miles of yarn daily, and consumes 60,000 bales of cotton a year. Over 700 electric lights are employed in lighting the mills. The 48 boilers burn 20,000 tons of coal a year in furnishing steam. The chimney used with these boilers is 264 feet high. The leading products of the Amoskeag Company, which have an international reputation, are ginghams, tickings of all grades and qualities, Denims, shirtings and cotton flannels. The A C A tickings and the blue Denims have been standard goods all through the United States for more than half a century, and the Denims have also been largely exported to the West Indies. The manufacture of ginghams was commenced in 1867 by the Amoskeag Company, which is now the largest producer of these goods in the country. They are made in

a large variety of styles and coloring, about 5,000 new patterns being brought out yearly. The Amoskeag Company, of which Thomas Jefferson Coolidge has been treasurer since 1876, has a capital of $4,000,000, with a value of about $8,500,000, and is one of the greatest and most successful industrial enterprises in all New England.

One of the bright and busy manufacturing towns in New Hampshire is Great Falls, in

GREAT FALLS: THE GREAT-FALLS MANUFACTURING COMPANY.

a romantic situation on the Salmon-Falls River. When the Great-Falls Manufacturing Company received its charter, and began operations, in 1823, the only buildings were a saw-mill, a grist-mill and two houses. Since then, a town of several thousand inhabitants has risen here, and the enormous mills front a wide area of carefully kept lawns and groves. The buildings extend nearly two thirds of a mile in length, and are substantially built of brick. The machinery is run by water-power. Excepting only the Amoskeag Company, the Great-Falls Manufacturing Company have the largest cotton-mills in New Hampshire. The paid-in capital is $1,500,000; and the mills contain 126,000 spindles and 3,000 looms, employing 1,600 persons, and producing every year 30,000,000 yards of sheeting, valued at $2,000,000. The present treasurer is J. Howard Nichols. Office, Exchange Building, Boston. The company's goods are sold by Minot, Hooper & Co., of Boston and New York.

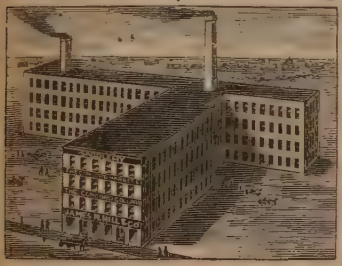
The Cocheco Manufacturing Company is located in the city of Dover, Strafford County, on the Cocheco River, whence it derives a portion of its power. It succeeded the Dover Manufacturing Company, which was organized in 1812, the charter being drawn up by Daniel Webster; and was the parent of the surrounding cotton-factories in New Hampshire and Maine, as Waltham in Massachusetts was of those in Lowell and Lawrence. In 1827 Eben Francis, Wm. Appleton, Amos Cotting, and others of Boston, organized the present corporation, continuing the manufacture of yarns and print-cloths, and also established the print works one of the first in the country. The plant has been gradually increased and improved until now it turns out about 50,000,000 yards of printed cotton goods, and manufactures 30,000,000 yards of gray cloths annually. The product was for many years confined to madder prints, which are well known throughout the Union, but it is now as varied as that of any print works. The capital stock is $1,500,000, and 1,650 operatives find employment, with an annual pay roll of $740,000. Lawrence & Co. of Boston, New York, and Philadelphia are the selling agents for the products of the Cocheco Mills.

DOVER: THE COCHECO MANUFACTURING COMPANY.

One of the most interesting of American industrial establishments is the Abbot-Downing Company, whose Concord coaches and carriages are known the world over for their excellent materials and thorough construction. The output of these works includes light and heavy express-wagons and trucks, coaches and stages of various kinds, hotel omnibuses, ambulances, hook-and-ladder trucks, and other vehicles. This great industry was founded

by Lewis Downing of Lexington, Mass., who opened a small wheelwright shop at Concord, in 1813. In 1826 he secured the services of J. Stephens Abbot, a journeyman coach-body-maker from Salem, with whom, two years later, he organized the copartnership of Downing & Abbot. In 1847 they separated, and formed independent firms; and in 1865 they were reunited as Abbot, Downing & Co., which absorbed a large rival house in 1873 and became the Abbot-Downing Company. Their wagons are in use on the plains of Australia, the rural roads of Japan, and amid the Rocky Mountains, as well as in all parts of the Atlantic States. The first coaches in California and Australia came from this ancient establishment, and the great twelve-horse coaches running to the Transvaal gold-fields, in South-Africa, are made here. The company employs 300 men, and the works cover five acres of ground. The manifold operations of this corporation reach every continent, and are ably directed by Lewis Downing, Jr., president, and Edward A. Abbot, treasurer.

CONCORD: THE ABBOT-DOWNING CO.

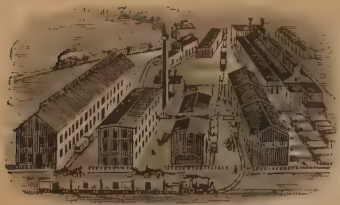


CONCORD: JAMES R. HILL HARNESS CO.

Parallel with the great coach-building industry of Concord has risen the closely related business of harness-making, which was brought to perfection by the cumulative skill of generations of intelligent workmen. Foremost in this trade stands the corporation of James R. Hill & Co., which was founded in 1840 by Mr. Hill, and has for many years been under the presidency and general management of George H. Emery. In their spacious works nearly 300 men are employed in making the well-known "Concord Harness," for freight and express wagons, coaches and carriages, and all manner of uses for business and pleasure driving. There is hardly a region in the world where their product is not used; and their awards of merit, at the Philadelphia, Sydney, Melbourne and other expositions contain the most distinguished compliments. The chief traits of excellence are the sensitively careful choice of leather, the superior grade of workmanship in making, and the intelligent adaptation of the harness to every purpose.

Paper-making has always been one of the prominent and successful industries of New England, whose exquisite products in the way of surface-coated goods and cardboards have driven European goods out of the American market. The only New-Hampshire corporation in this line of labor is the Nashua Card & Glazed Paper Company, whose handsome and spacious new factory is stocked with a great variety of costly improved and patented machinery. The yearly product is above 10,000,000 pounds of cardboard and glazed papers, lithographic board and paper; and at times the demand for these articles is so great that the works are compelled to run at night. The operations of mixing and applying colors, by hand or machinery, are done with marvelous precision; and all the details of the manufacture are carried forward with equal accuracy and trained skill. The mill is lighted by electricity and heated by steam. The Nashua Card and Glazed Paper Company's trade is national in its extensive line of customers.

NASHUA; NASHUA CARD & GLAZED PAPER CO.

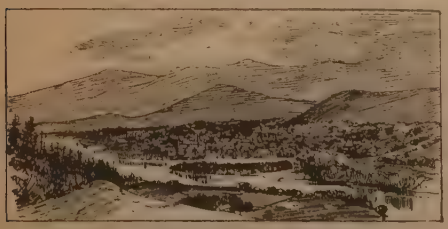


NASHUA: WHITE-MOUNTAIN FREEZER CO.

An interesting industry, and one especially appropriate to this cool northern land, is represented by the White-Mountain Freezer Company, the foremost concern in this industry in the United States, whose extensive works are at Nashua, a pleasant city on the Merrimack River, about 40 miles northwest of Boston. The plant covers five acres, with several ranges of buildings, convenient to lines of railway track; and a large force of skilled workmen are constantly employed in the manufacture of this popular freezer. The goods are sold at all the principal cities of this country, and thousands are exported annually. The features of especial merit are: A covered gearing; heavy waterproof tubs; cans of best tin-plate; and beaters of malleable iron and tinned, whereby no zinc surfaces are in contact with the cream, thus avoiding the danger of zinc poison so common by using freezers having galvanized — (zinc-coated) — dashers. Above all, the White-Mountain is the only freezer in the world having the triple motion, with which a finer, smoother cream is produced than in any other machine ever invented.

CONCORD: INSANE ASYLUM.

Minerals. — The Franconia-Iron Works began operations in 1811, but have been closed for many years. Gold has been mined at Lisbon, tin at Jackson, lead at Shelburne, zinc at Madison, copper at Lyman, iron at Bartlett and Tamworth, and graphite at Nelson, in small quantities. The Grafton mica, Lebanon slate, Acworth feldspar, East-Haverhill lime, and Francestown soapstone have been quarried for many years. Over 1,000 men are engaged in the granite-quarries, nearly half of them near Concord, whose handsome fine-grained and light-colored stone is used in all the Atlantic cities.

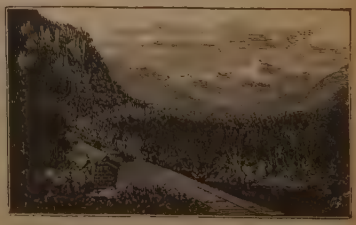


GORHAM: GATEWAY TO THE WHITE MOUNTAINS.

With its many attractions of mountains, lakes and sea-coast, and its cool northern summers, this State has become a vernal pleasure-park for myriads of vacation-tourists. In this regard, rather than for the majesty of its scenery (now that Wyoming and Colorado are so accessible), New Hampshire merits its old title of "the Switzerland of America." The favorite season is July, August and September, though June and October are also included in the pleasure-time. Many hundreds of farmers' houses are kept open for boarders, and the amount spent each year by summer-visitors is above $4,000,000.

"Land of the cliff, the stream, the pine,
Blessing, and honor, and peace be thine!
Still may the giant mountains rise,
Lifting their snows to the blue of June,
And the south wind breathe its tenderest sighs,
Over thy fields in the harvest moon"

— EDNA DEAN PROCTOR.



MOUNT WASHINGTON, FROM MAINE CENTRAL R. R.

HISTORY.

The first European to look upon the low sandy shores of New Jersey was Henry Hudson, whose little ship *Half-Moon* cast anchor inside of Sandy Hook, in 1609. By virtue of his discoveries, patronized by the Dutch East-India Company, the people of the Netherlands laid claim to a vast and scarcely defined tract of land, embracing the eastern portion of New York, and all of New Jersey. Incited by the obtaining of so valuable a possession, colonies were sent from Holland, and within a decade settlements arose in the vicinity of Jersey City (then called Bergen), the main trading-post being on the site of New York, At about the same time, Godyn and Bloemart purchased Cape May from the Indians. Gustavus Adolphus, King of Sweden, desiring to found a New Sweden in the western world, also sent colonies to Delaware. Some of these adventurers passed over into West Jersey, occupying territory claimed by the Dutch. This action led to a series of disputes, and finally Gov. Stuyvesant appeared in the Delaware, and secured the submission of the Swedes, in 1655.

For years all this territory, the Dutch Bergen, the patroonship of Cape May, and New Sweden alike, had been claimed by the English, by right of Cabot's discovery, by Ralegh's patent, and by the patents of the London and Plymouth companies, not to mention Ployden's more or less fabulous expedition and the claims of a few New-Englanders on the Delaware. So, in 1664, King Charles granted to the Duke of York a great tract of land, from Cape May to Nantucket, the Duke, in turn, granting New Jersey to Lord John Berkeley and Sir George Carteret, giving them the absolute estate and title to the land, and also the power to rule and make laws. Philip Carteret was the first governor, and named the capital Elizabeth, after the wife of Sir George Carteret. The settlers at Newark were Connecticut Puritans. A few years later,

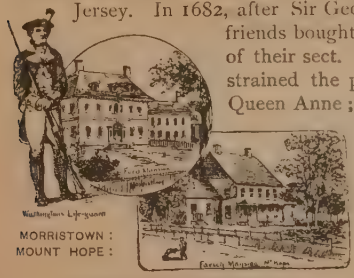
STATISTICS.

Settled at	Bergen.
Settled in	1627
Founded by	Dutchmen.
One of the original 13 States.	
Population, in 1860,	672,035
In 1870,	906,096
In 1880,	1,131,116
White,	1,092,017
Colored,	39,099
American-born,	909,416
Foreign-born,	221,700
Males,	559,922
Females,	571,194
In 1890 (U. S. census),	1,444,933
Population to the square mile,	151.7
Voting Population,	300,635
Vote for Harrison (1888),	144,344
Vote for Cleveland (1888),	151,493
Net Public Debt,	0
Assessed Valuation of Property (1890),	$688,000,000
Area (square miles),	7,815
U. S. Representatives (in 1893),	8
Militia (Disciplined),	4,295
Counties,	21
Post-offices,	859
Railroads (miles),	2,047
Vessels,	1,142
Tonnage,	91,996
Manufactures (yearly),	$254,375,236
Operatives,	126,038
Yearly Wages,	$46,083,045
Farm Land (in acres),	2,929,773
Farm-Land Values,	$190,895,833
Farm Products (yearly)	$29,650,756
Public Schools, Average Daily Attendance,	135,187
Newspapers,	353
Latitude,	38°55′51″ to 41°21′19″ N.
Longitude,	73°53′51″ to 75°33′3″ W.
Temperature,	—10° to 101°
Mean Temperature (Trenton),	53°

TEN CHIEF CITIES AND THEIR POPULATIONS (CENSUS OF 1890).

Newark,	181,830
Jersey City,	163,003
Paterson,	78,347
Camden,	58,313
Trenton,	57,458
Hoboken,	43,648
Elizabeth,	37,764
Bayonne,	19,033
Orange,	18,814
New Brunswick,	18,603

the proprietaries divided their principality on a line from Little Egg Harbor to the Delaware (below Burlington), East Jersey pertaining to Carteret, and West Jersey to Berkeley. Getting little gain and much contention out of his half, the latter sold it in 1674 to a syndicate of Quakers for £1,000; and numbers of these friends of peace came over from England and Scotland, and settled about Salem and Bordentown, and subsequently in East Jersey. In 1682, after Sir George Carteret died, William Penn and his Quaker friends bought East Jersey, and it became a refuge for the oppressed of their sect. The troubles in the local government finally constrained the proprietaries to surrender their sovereign rights to Queen Anne; and Lord Cornbury in 1702 became Governor of New York and New Jersey, each Province having a separate assembly. In 1738 New Jersey secured a separate administration; and its last royal Governor was William Franklin, the son of Benjamin Franklin.



WASHINGTON'S HEADQUARTERS.

Although remote from the scene of hostilities, and hampered with a large Quaker population, New Jersey furnished for each of the twelve colonial campaigns against the French and Indians from 500 to 1,000 soldiers, whose blue uniforms gave rise to the name "Jersey Blues," especially applied to the battalion serving in King George's War (1745–8).

This lowland Belgium between the capital of the United States and the headquarters of British military power in America naturally became the scene of some of the chief campaigns of the Revolution. But one colony suffered as much in the war, yet New Jersey sent 10,726 soldiers into the Continental Line, besides raising large militia forces, which at times formed the chief strength of the patriot army. On Christmas night, 1776, Washington with 2,400 men and 20 guns crossed the Delaware in a wild storm of sleet and snow, and through the floating ice, and at daylight surprised the 1,200 Hessian troops in garrison at Trenton, capturing 918 men and the colors of three German battalions. A few days later, Washington skilfully evaded Lord Cornwallis, and defeated the 17th, 40th, and 55th British regiments at Princeton, bombarding and taking the college, then held by the enemy, and capturing the Royal artillery, and then safely retiring to the hill-country about Morristown. Frederick the Great pronounced Washington's Trenton-Princeton campaign "the most brilliant in the annals of military achievements." In 1777 Fort Mercer, at Red Bank (on the Delaware), garrisoned by the 1st and 2d Rhode-Island regiments, was bombarded by Count Donop, who led 1,200 Hessian infantry to storm the works, and suffered defeat, losing his own life and the lives of 400 of his men. At the same time, the brave Rhode-Islanders beat off and partly destroyed a British fleet on the river. The battle of Monmouth, June 28, 1778, was caused by Lafayette, Wayne and Lee attacking the rear-guard of Sir Henry Clinton's army, retreating to New York. The American van suffered rout, but the British grenadiers gave way before Knox's batteries and Wayne's riflemen. An imposing granite monument, ornamented with bronze bas-reliefs, was erected on the battlefield in 1884. The cantonments of the army in the winter of 1779–80 were at Morristown, and the house then occupied by Gen. Washington and his wife is now sacredly preserved, as public property. The ancient boards of proprietors of East Jersey and West Jersey retain their proprietary headquarters at Perth Amboy and Burlington,

BARNEGAT LIGHT.

There were a dozen or more tribes of Indians in New Jersey—those north of the Raritan being of the Minsi Delawares, and those south of the Raritan pertaining to the Delawares. They were treated

with justice, and so the province escaped the bitter Indian wars that devastated other regions. The last remnants of these aboriginal tribes left the State in 1802, and moved to Oneida Lake, and subsequently to the shores of Lake Michigan. In 1832, being then reduced to 40 persons, they sold their reserved rights of hunting and fishing in unenclosed New-Jersey lands, to the State Legislature, and so disappeared from history.

WOODBURY: OLD COURT HOUSE.

Slavery was one of the institutions of the Jerseys for over a century, and the Africans were usually immured at Perth Amboy when first landed from the slave-ships. In 1820 an act was passed giving freedom to all children born of slave-parents, after certain dates, and by 1840 there were but 674 slaves remaining, although in 1800 there had been 12,422.

The Constitution of 1776 allowed universal suffrage, which was practiced until 1807, women voting whenever they chose.

During the civil war, New Jersey sent into the National army and navy 88,305 men, being 10,057 in excess of her quota, and within 10,501 of her entire militia. They were among the bravest and best disciplined troops in the army.

The State is represented in the National Gallery of Statues at Washington by a marble statue of Richard Stockton, a signer of the Declaration of Independence, and a bronze statue of Gen. Philip Kearny, one of the most gallant generals in the Secession War.

The Name of the State, *Nova Cæsarea*, or *New Jersey*, commemorates the gallant defence of the Isle of Jersey, in the English Channel, by Sir George Carteret, who beat off the Parliamentary forces during the civil war. New Jersey is sometimes called THE GARDEN STATE, on account of the large variety of its floral and agricultural products. Joseph Bonaparte, a Corsican lawyer, was made by his younger brother, Napoleon Bonaparte, King of Naples (1806–8) and then King of Spain (1808–13). After Waterloo, he fled to America, and bought an estate of 1,400 acres at Bordentown, where he dwelt until 1832, entertaining many illustrious Frenchmen. The Philadelphians were rather jealous of the good luck of New Jersey in securing such distinguished residents, and called the State *Spain*, with good-humored raillery reading it out of the Union. Hence arose the gibe that this domain is in some sense a foreign land; and the people were long called foreigners and Spaniards, since their social leader was the King of Spain. The term *State of Camden and Amboy* was also used in the days when the Camden & Amboy Railroad influence held a dominating power.

NEWTON: FARMING SCENE.

The Arms of New Jersey bear three ploughs, on a silver shield, denoting the agricultural prosperity of the State, with female figures of Liberty and Ceres as supporters. The crest is a horse's head, indicative of stock-raising. The motto *Liberty and Prosperity* has sometimes been added, but without official authority. This seal was adopted for the State in the year 1776.

NAVESINK: HIGHLAND LIGHTS. | SANDY HOOK: SIGNAL STATION.

The Governors (after the Dutch and Swedish rules) included seven of East Jersey and eight of West Jersey (1665–1703), eleven of New Jersey and New York united (1702–38), ten of New Jersey as a Province, and the following-named of the State: Wm. Livingston, 1776–90; Wm. Paterson, 1790–2; Richard Howell, 1792–1801; Joseph Bloomfield, 1801–2 and 1803–12; John Lambert, (acting), 1802–3; Aaron Ogden, 1812-3;

Wm. S. Pennington, 1813–5; Mahlon Dickerson, 1815–7; Isaac H. Williamson, 1817–29; Garret D. Wall, 1829 (declined); Peter D. Vroom, 1829–32; Samuel Lewis Southard, 1832–3; Elias P. Seeley, 1833; Peter D. Vroom, 1833–6; Philemon Dickerson, 1836–7; Wm. Pennington, 1837–43; Daniel Haines, 1843–4 and 1848–51; Chas. C. Stratton, 1845–8; Geo. F. Fort, 1851–4; Rodman M. Price, 1854–7; Wm. A. Newell, 1857–60; Chas. S. Olden, 1860–3; Joel Parker, 1863–6; Marcus L. Ward, 1866–9; Theodore F. Randolph, 1869–72; Joel Parker, 1872–5; Joseph D. Bedle, 1875–8; George Brinton McClellan, 1878–81; George C. Ludlow, 1881–4; Leon Abbett, 1884–7; Robert Stockton Green, 1887–90; and Leon Abbett, 1890–3.

NEWARK: KEARNY MONUMENT.

Descriptive.—New Jersey is a peninsula, bounded by the Delaware, the Hudson and the ocean; and may be divided into the northern mountains, the central hill-country, and the southern pine-forests, sandy plains and marshes. Lying between New York and Philadelphia, the chief cities of America ("like a cider-barrel tapped at both ends," as Benjamin Franklin said), market-gardening and agriculture are the profitable pursuits of one sixth of its inhabitants; and its 120 miles of sandy sea-fronting beaches afford fashionable and crowded summer-resorts for these metropolitan hives of people. The shape of New Jersey has been likened, by its geological survey, to that of a bean. From Cape May to its northern point the distance is 167⅜ miles. Its greatest breadth is 59 miles; and from Bordentown to South Amboy it is but 32 miles across. There are only three States smaller in area. The Kittatinny (or Blue) Mountain extends for nearly 50 miles across the northwestern corner of the State, near and parallel with the Delaware River, which forms the boundary. It runs from Mt. Tammany, at the Delaware Water Gap (1,479 feet high), to the peak of High Point (1,799 feet), where it joins the Shawangunk Range. The steep eastern declivities are carefully cultivated, and lead up to a line of forests, crowning the wall-like range with sombre color. On the east opens the long Kittatinny Valley, a rich grazing and farming country, ten miles wide, and abounding in clear lakes, fair green hills and broad reaches of valuable limestone lands. The Highlands cross northwestern New Jersey in a belt 60 miles long and from 10 to 22 miles wide, joining the South-Mountain range of Virginia, Maryland and Pennsylvania to the Highlands of New York and New England. They cover 900 square miles, between the Kittatinny Valley, on the north and west, and the red sandstone plain on the south, with a succession of detached parallel ridges, smooth-crested and without peaks, and reaching their greatest height on Hamburg Mountain (1,488 feet). Their detached parallel ridges include the Ramapo, Trowbridge, Wawayanda, Hamburg, Schooley's, Musconetcong, Pohatcong, Scott's and Jenny-Jump Mountains. Some of these are rich in minerals; some are cultivated all over; and others are bare, rocky and valueless.

THE PALISADES AND HUDSON RIVER.

Southeast of the Highlands, from Trenton to Staten Island, and from Holland to Morristown and Suffern, is the Triassic or Red-Sandstone region, of 1,540 square miles, the most thickly settled part of the State. Breaking through this red plain, perpendicular toward the east and gently sloping toward the west, are the low trap ridges of the Watchung, Sourland and Pickle Mountains. The most famous of these is the Palisades, a line of wonderful basaltic precipices extending along the

LAKE HOPATCONG.

PATERSON: PASSAIC FALLS.

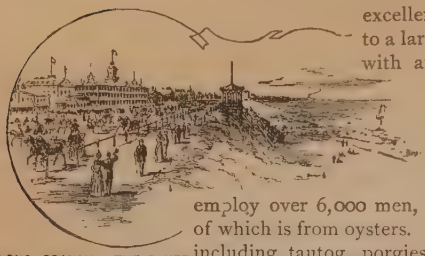
Hudson River from Staten-Island Sound to Ladentown (N.Y.), and looking down on the crowded streets of New York. This lonely line of cliffs is crowned with woods, and has many a bright cascade, many a deserted village and dock, and exquisite views over the broad Hudson. Nearly parallel, and several leagues inland, rise the long walls of the First, Second and Third Mountains. Orange Mountain is visible from New-York Harbor. The beautiful hill-country beginning at Orange, and including Madison, Montclair, Summit and Morristown, is enriched by hundreds of summer-estates and villas, suburban to New York. The land is lifted into great smooth folds, around which wind broad and excellent roads, traversing the fairest parts of this natural park. The mounds and dells of Short Hills are occupied by scores of the handsomest modern country-houses, with serpentine roads, ravines of ferns, gardens famous all over America, and vistas extending out to the Navesink Highlands. Farther to the east, over Dunellen, rises Washington Rock, from which the great Virginian used to watch the movements of the British troops in upper New Jersey. Thence the wayfarer may see the ships on the blue Atlantic, scores of white villages and cities (like Elizabeth, Rahway, Newark and Amboy), the chief buildings of great New York, and the piers of the Brooklyn Bridge, in a noble and commanding prospect, which includes the most populous and wealthy part of the American Union.

ATLANTIC CITY.

Greenwood Lake lies among wildernesses of rugged rocks and woodlands, on the New-York frontier, and has several groups of pretty islands, and summer-hotels for hundreds of guests. Lake Hopatcong, nine by three miles, is a beautiful forest-girt sheet of water, glimmering among the dark Brookland Mountains; and in the same region is Budd's Lake, a round shield a league in circumference, and 1,200 feet high, over the Musconetcong Valley. Both these localities have large summer-hotels and fine rural estates. Another popular point in this region is Schooley's Mountain, with its celebrated tonic chalybeate spring and hotels, visited now for nearly a century, and overlooking the Musconetcong and German Valleys. The Heath House was opened as a summer-resort in 1793, and Gen. Washington spent part of a season here. His room and furniture are kept just as he left them.

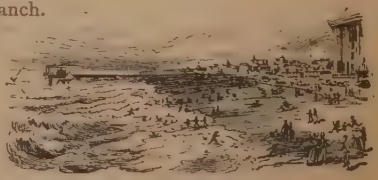
The southern part of the State is a plain, rarely rising to an altitude of two hundred feet, and almost without mineral deposits, except bog iron ore. Forests of fragrant cedar front Delaware Bay and the Atlantic Ocean. Contrary to the general opinion, the land is not a sandy waste of pine and scrub oak, but rather a rich unimproved agricultural country, where cleared farms are often worth $250 to $400 per acre. With soil and climate like those of southeastern Virginia, trucking for markets is a profitable industry, whilst the best rail and water communication exists with the great cities. The Vineland and Hammonton colonies were founded about 20 years ago, mainly by New-Englanders, with their characteristic ideas and institutions, and on the gravelly loam quantities of small fruits are raised for the city markets. In this vicinity are colonies of Russian Jews, driven from their own country. South Jersey is well adapted to the manufacture of glass and bricks, as

PERTH AMBOY: RAILWAY BRIDGE, RARITAN RIVER.



LONG BRANCH: THE BLUFF AND BATHING BEACH.

excellent sand and clay abound. The ocean-front is to a large extent composed of narrow sandy islands, with areas of melancholy salt-marsh and tidal lagoons inside, reached by narrow inlets. Barnegat Bay, and Great and Little Egg Harbors, are useful for small vessels only. Newark Bay covers ten square miles, and opens on New-York harbor. The fisheries employ over 6,000 men, with a yearly product of $3,000,000, most of which is from oysters. A score of varieties of foodfish are caught, including tautog, porgies, sheep's-head, weak-fish, mackerel, cod, blue-fish, swordfish, haddock, salmon and herring. Jersey City, with its enormous commerce, is in the New-York customs-district. The ports of entry on the coast are Perth Amboy, Great Egg Harbor, Tuckerton, Newark, and Bridgeton. Lamberton is at Trenton, on the Delaware. Sandy Hook forms one of the portals of the Lower Bay of New York, and is partly covered with scrub oak and pine and ground ivy, and occupied by a deserted stone fort, three light-houses, a telegraph station for reporting incoming vessels, and an ordnance station of the United-States Army, with several officers and 40 soldiers, where great guns are tested. The Hook belongs to the Government; and is joined to the mainland by a narrow sand-strip six miles long, between the sea and Shrewsbury River. Steamboats run from New York to the Hook, whence a railway goes down the beach to Long Branch. The most conspicuous point on the coast is the Highlands of Navesink, a rugged and wooded range rising from the sea near Sandy Hook, Mt. Mitchell being 282 feet high. The great Fresnel lanterns of the Highland Lights flash 248 feet above the water, visible for many leagues at sea. From the tops of their tall stone towers New York and the Narrows may be seen, with the villages of Long Island, the blue waters of Raritan Bay, the coast as far down as Long Branch, and a vast expanse of ocean. The scenes of Cooper's *Water Witch* are laid in this vicinity. The coast below is lined with well-known summer-resorts, abounding in hotels. Beginning on the north, with the sea-commanding Highlands of Navesink, we may go southward by Seabright to Long Branch, in Grant's day the summer capital of the Republic, and enriched with many costly villas, 31 miles from New York, and close to the famous Monmouth-Park race-course; Elberon, where President Garfield died; Asbury Park and Ocean Grove, famous Methodist camp-meeting grounds, with the rude tents of former years replaced by huge hotels and many cottages, and the summer-headquarters of bishops, King's Daughters, deaconesses, and other devout persons; Sea Girt, with the camp of the New-Jersey National Guard; Point Pleasant, the oldest sea-side resort on the coast; Seaside Park, on the beach outside of Barnegat Bay; Tom's River and Tuckerton, quiet old maritime villages on the estuaries; Atlantic City, beyond the vast salt-marshes of Absecon, and near Brigantine Beach, with its magnificent strand, favored by people of Philadelphia (64 miles northwest), both in summer and winter; and Cape May, 81 miles from Philadelphia, one of the famous Capes of Delaware. Above Cape May are several beaches.



CAPE MAY.

CAPE MAY: OCEAN PIER.

DELAWARE WATER GAP.

The coast consists of broad tidal meadows, with no good harbors, and is starred at night with fifty lights, of which nearly a score glimmer around New-York Bay, while others show the courses up the Delaware as far as Bordentown, and the tall towers of the Cape-May, Absecon, Barnegat and Navesink lights face the Atlantic. This coast has been called "The Graveyard of the Sea," so numerous have been the wrecks along its barren sands. It is now occupied by a line of stations of the United-States Life-Saving Service. In six years of the last decade, 400 vessels went ashore here, and 4,650 lives and $7,000,000 worth of property were saved, only 80 persons having been lost. Surfmen patrol the beaches through the winter nights; and when a wreck is discovered they burn red Coston lights, to alarm the stations and to notify the sailors that help is near.

The chief rivers include the Passaic and Hackensack (80 miles long), emptying into Newark Bay; the Raritan, navigable to New Brunswick, 17 miles; the Little Egg Harbor and Great Egg Harbor Rivers, emptying into the Atlantic; and the Maurice.

Lakewood is one of the foremost winter-resorts in America, and stands in a dense pine forest, eight miles from the ocean, free from malaria and rich in the perfume of myriads of pine-trees. Thousands of guests enjoy its bracing air every winter and spring. Still greater numbers visit Atlantic City, whose climate is milder, during the inclement season, than almost any other point in the snowy North. Brown's Mills, in the pine woods 30 miles east of Philadelphia, has also been a health-resort for over seventy years. The healthy uplands of the north have a mean temperature of 48° to 50°, and 50 inches of rainfall. The southern plains, under the influence of the ocean, have an annual mean of 54°, with a precipitation of 41 inches.

VIEW FROM THE PALISADES.

Agriculture employs 30,000 New-Jersey farms, covering 3,000,000 acres, and valued at $265,000,000. The State raises yearly 600,000 tons of hay, worth $7,500,000; 10,000,000 bushels of corn, worth $5,000,000; 3,500,000 bushels of oats and potatoes; and 2,000,000 bushels of wheat. The Delaware Valley from Trenton to Salem, and other parts of the central counties, are among the most carefully and skillfully developed farming regions in America, being in effect vast market-gardens for New York and Philadelphia. Farmlands are worth more here than in any other State. New Jersey is famous for its peaches, and sends to market yearly above 2,000,000 baskets, the fruit being fully equal in flavor to that of any other region, and much nearer the metropolitan cities. It is also one of the three great cranberry States (the others being Massachusetts and Wisconsin), and the crop has exceeded 234,000 bushels in a year. The headquarters of the American Cranberry Growers' Association is at Trenton. The counties of Sussex and Warren and the adjacent Orange County (N. Y.) produce nearly all the apple-brandy made in America, their 50 distilleries turning out nearly 200,000 gallons yearly. This fiery spirit is commonly known as applejack, or Jersey lightning. The live-stock of the State is valued at about $20,000,000, and

BOONTON: THE NAIL-WORKS.

INCLINED PLANE, MORRIS CANAL.

includes 125,000 horses, 240,000 cattle, 150,000 hogs and 130,000 sheep. The dairy products yield a great amount yearly. Two fifths of the State is covered with forests, whose products in fuel and lumber exceed $5,000,000 yearly. The annual loss by forest-fires exceeds $1,000,000.

Minerals.— The Kittatinny Mountain has large quarries of slate on the southeast, at Delaware Water Gap and Newton, for roofing and flagging; and water-lime and Rosendale cement on the north. Northwest of the Highlands lie the Palæozoic rocks, and the valuable magnesian limestones and hematite iron-ores of the Kittatinny Valley. The Highlands are of Azoic rocks, syenitic gneiss and crystalline limestone, with great deposits of magnetic iron ore, of which from 500,000 to 1,000,000 tons are mined yearly, and worked in the furnaces at Oxford, Boonton and Phillipsburg, and in Pennsylvania. This range also yields blue sedimentary rock, for building and for making lime, and has valuable quarries of granite. New Jersey is one of the foremost States in producing zinc, mined at Ogdensburg and Franklin, and worked at Newark and Jersey City. The product of Sussex County since 1880 has averaged over 40,000 tons a year. The 1,540 square miles of the red sandstone plain contain valuable quarries at Newark, Belleville, Paterson, Orange, Trenton, and Little Falls (whence came the stone for Trinity Church, N. Y.). These firmly cemented deposits of once incoherent beds of sand contain many fossils of fishes and plants. The quarries at Greensburg and Prattsville, on the Delaware, send their product largely to Philadelphia. The Perth-Amboy Terra-Cotta Works use 15,000 tons of clay, and turn out $400,000 worth of goods yearly. Trenton makes more pottery and crockery than all the rest of the Atlantic States. The plastic and fire-clays of Trenton, Woodbridge and Amboy are pure and highly refractory; and have a high value in the arts. In a single year, 350,000 tons of these clays have been worked, making a large proportion of American terra cotta, pottery and stone-ware, besides 160,000,000 red bricks and 16,000,000 fire-bricks. The Raritan and Delaware districts yearly send out 250,000 tons of fire-clay and potters' clay, valued at $460,000; and 80,000 tons of fire-sand. From Sandy Hook to Salem extend beds of marl, clay marl and shell marl, of which 200,000 tons are used yearly for fertilizing the soil; and thick alternating strata of sand and green-sand, the latter of which is used in glass-making. In former days, copper and graphite were obtained in New Jersey, which also has small deposits of lead and nickel, and valuable manganese, sulphate of baryta, kaolin, pyrites and infusorial earth. The rose-crystal marble of Jenny-Jump and the serpentine of Montville are noteworthy minerals.

MOUNT BYRAM: IRON MINE.

HOBOKEN: THE STEVENS INSTITUTE.

The Government consists of a governor, elected for three years by the people; a legislature of 21 three-years senators and 60 one-year assemblymen; secretary of state, attorney-general, adjutant-general, quartermaster general, and other officials appointed by the governor

and confirmed by the senate; and a treasurer and comptroller and others appointed by the legislature. The judiciary (mainly appointed by the governor and confirmed by the senate) includes the courts of errors and appeals, of impeachment (the senate), of chancery, of prerogative, and of pardon; the supreme court of nine justices; and the circuit and common-pleas courts in each county. The State House overlooks the Delaware River, at Trenton, and its front part, built to replace one partly burnt in 1885, is a Renaissance structure, of Indiana oolitic limestone, with a dome and rotunda, and a portico and balcony upheld by polished marble columns. The library of 35,000 volumes, the geological museum, and the battle-flags of the volunteers of 1861–5, are preserved here.

MORRISTOWN: INSANE ASYLUM.

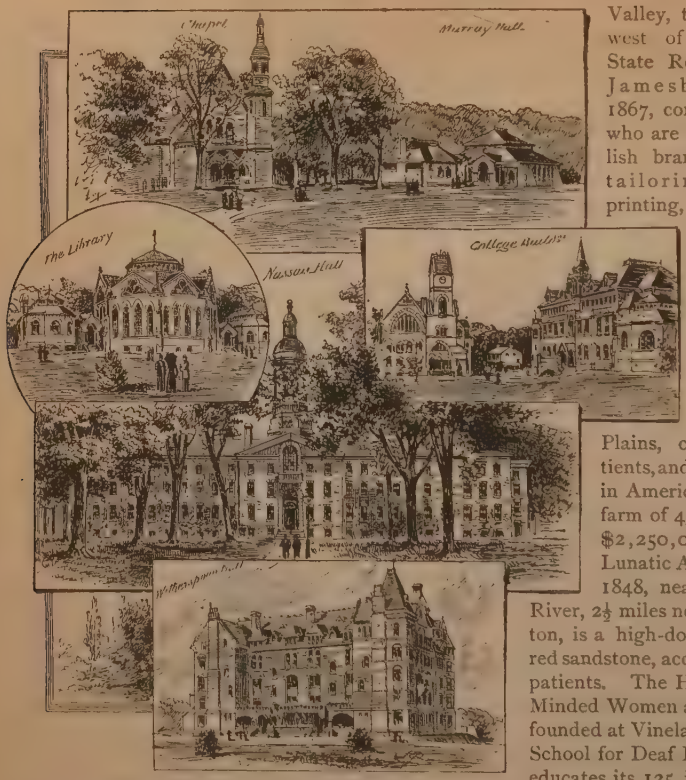
The Geological Survey and its geodetic and topographical works have been of great benefit. These works were begun by Prof. H. D. Rogers (1839–40) and Dr. Wm. Kitchell (1854–6), and continued from 1864 to 1889 by Prof. G. H. Cook. The Labor Bureau continually studies ways of opening profitable new avenues for industry; collects statistics about labor and capital; and helps these two great forces to agree. The Board of Health collects valuable vital statistics, and investigates all matters pertaining to the public health. The State debt was contracted in 1861–5, mainly for supporting soldiers' families. No State tax has been levied for several years.

GREENWOOD LAKE.

The National Guard is embodied in a division of two brigades. The First Brigade includes the First (headquarters, Newark), Second (Hoboken), Fourth (Jersey City), and Fifth (Newark) Regiments; the First, Second, and Third Battalions, of Paterson, Leonia and Orange; Gatling Battery A, of Elizabeth; and five gun detachments. The Second Brigade is made up of the Third (Elizabeth), Sixth (Camden), and Seventh (Trenton) Regiments, with their gun detachments; Gatling Battery B, of Camden; and Company A, Sea-Coast Artillery, of Atlantic City. The reserve militia numbers 285,000 men. One brigade of the National Guard encamps for a week each summer at Sea Girt, alongside of the ocean, where the State has a capital camp-ground of 119 acres. Great attention is paid to rifle-practice, and gold and silver crosses of honor are awarded to marksmen. The artillery cannonades targets anchored off shore. Skirmish-drill and volley-firing are also practiced. The State owns 46 field-pieces and eight Gatlings. The Arsenal occupies the old State Prison at Trenton, built in 1797; and has several British and French trophy cannon, and the arms and ammunition, tents, and other military supplies. The New-Jersey Home for Disabled Soldiers was founded in 1865 at Newark, and in 1888 moved into commodious new buildings at Kearney, on the Passaic River. It has 430 inmates, unfortunate veterans of the Secession War.

The defective and delinquent persons in New Jersey number 7,200, costing the State $1,700,000 a year. The State Prison at Trenton was finished in 1836, of Ewing red stone, and in Egyptian architecture. It contains 1,000 convicts. Indeterminate sentences have been recommended for trial here. The State laws forbid that criminals under 16 years shall be confined with adults. The State Industrial School for Girls dates from 1871, and has 90 inmates. It occupies a large farm, in the beautiful Delaware

PRINCETON: JOHN C. GREEN SCHOOL OF SCIENCE.



PRINCETON: THE COLLEGE OF NEW JERSEY.

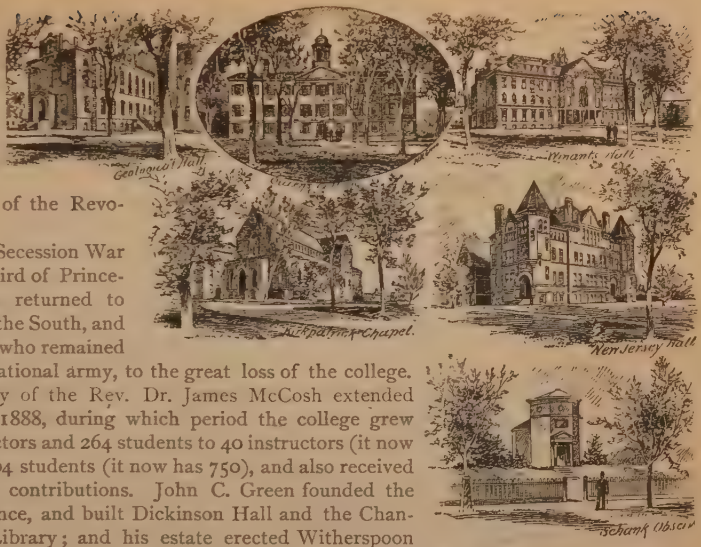
Valley, two miles northwest of Trenton. The State Reform School at Jamesburg, opened in 1867, contains 330 boys, who are taught the English branches, and also tailoring, shoe-making, printing, brick and tile making and farming. It occupies a farm of 490 acres. The vast and imposing palace of the State Asylum for the Insane, on Morris Plains, contains 900 patients, and is one of the best in America. It occupies a farm of 430 acres, and cost $2,250,000. The State Lunatic Asylum, opened in 1848, near the Delaware River, 2½ miles northwest of Trenton, is a high-domed building of red sandstone, accommodating 800 patients. The Home for Feeble-Minded Women and Children was founded at Vineland in 1888. The School for Deaf Mutes at Trenton educates its 125 inmates in English branches and industrial dexterity. Blind children are supported by the State in Pennsylvania and New-York institutions.

The only garrisoned United-States military post in New Jersey is Fort Wood, on Bedloe's Island, New-York Harbor, where stands Bartholdi's famous statue of Liberty Enlightening the World. The United-States Powder Depot is 4½ miles from Dover.

Education.—New Jersey has 392,209 children of school-age, of whom 227,441 are enrolled in the free public schools. These schools can accommodate but 212,000. The school-funds, including riparian leases and agricultural-college funds, reach nearly $3,500,000, giving a yearly income of $275,000, besides over $3,000,000 of school-taxes. The value of the school-property exceeds $8,500,000. The school-libraries contain 90,000 volumes. The State Normal School at Trenton has 250 students. The Model School at Trenton is a fully equipped State academy, with 450 students. The Farnum School, at Beverly, preparatory for the Normal, has 130 students.

Princeton College, officially called the College of New Jersey, received its charter in 1746, as a Presbyterian "seminary of true religion and sound learning," and held its earliest sessions at Elizabethtown and Newark, removing in 1757 to Princeton, whose citizens contributed liberally to its establishment. The great stone building of Nassau Hall, named for King William III., of the House of Nassau, dates from 1754–7, and was then the largest building in the American colonies. During the Revolution this edifice was for five years a

barrack and hospital for the British and American armies. The Continental Congress held sessions here in the latter part of the Revolution.



NEW BRUNSWICK: RUTGERS COLLEGE.

When the Secession War broke out, a third of Princeton's students returned to their homes in the South, and many of those who remained entered the National army, to the great loss of the college. The presidency of the Rev. Dr. James McCosh extended from 1868 to 1888, during which period the college grew from 16 instructors and 264 students to 40 instructors (it now has 50) and 604 students (it now has 750), and also received $3,000,000 in contributions. John C. Green founded the School of Science, and built Dickinson Hall and the Chancellor-Green Library; and his estate erected Witherspoon and Edwards Halls and the small observatory, the electrical building and the Laboratory. In all, $1,500,000 came to Princeton from this source. Wm. Libbey gave the University Hotel and the Museum of Geology and Archæology. Gen. Norris Halsted erected the observatory. Robert Bonner and H. C. Marquand built the beautiful gymnasium; and the latter erected the chapel. His brother's estate founded the School of Art. The Stuarts gave the president's house and grounds, and founded the School of Philosophy. Mrs. Susan D. Brown gave $175,000 to erect Albert Dod Hall and David Brown Hall. A number of the professorships bear the names of the founders. Princeton has 6,300 alumni, including 1,250 clergymen and 400 physicians. The ancient Nassau Hall and East and West Colleges, and the American Whig and Cliosophic Halls enclose a quiet quadrangle, guarded by two Revolutionary cannon. On either side of this central group, embowered in many trees, are the more modern buildings, with their valuable museums and collections. The libraries contain 80,000 volumes; and among the treasures of the Art Building are the Mainion Assyrian antiquities and the Trumbull-Prime pottery. Most of the buildings are of stone, and stand in a beautiful campus arranged by Frederick Law Olmsted and Donald G. Mitchell. The Theological Seminary was established in 1812 by the General Assembly of the Presbyterian Church. It has no organic connection with the college. It has a board of directors and a board of trustees. The directors elect the professors, and fill their own vacancies, both subject to a veto of the General Assembly, which thus retains ecclesiastical control over the institution. Besides the original building, it has an additional dormitory, the gift of Mrs. George Brown, of Baltimore, a building for lecture courses, given by R. I. and A. Stuart, of New-York City, a refectory and a chapel, and two library buildings, erected by James Lenox, of New York, besides several professors' houses. These donors, together with the J. C. Green estate, have furnished the larger part of the endowment. The library contains upward of 50,000 volumes. The seminary has ten instructors, 175 students and 4,000 graduates. Evelyn College is a modern and successful institution for young women, near Princeton College, and has 50 students.

Rutgers College received its charter in 1766, as Queen's College, and opened its doors at New Brunswick, in 1771, mainly to prepare young men for the ministry of the Reformed

Protestant Dutch Church. The buildings were burned by the British, and the institution suffered three periods of suspension, covering 25 years. Under the presidencies of Milledoler, Frelinghuysen, Campbell and Gates (1825 90), the college has advanced steadily, and it now has 23 instructors and 187 students. The shadowy campus contains the noble old brownstone building of Queen's College, the geological hall, the observatory, the beautiful chapel and library, and the handsome colonial dormitory. Winants Hall, erected in 1889-90, with assembly and dining halls, and dormitories for 120 students. The State College for the Promotion of Agriculture and the Mechanic Arts, founded in 1865, with $116,000 coming from the Congressional land-grant, is connected with Rutgers, practically as its scientific school, and has an admirable model farm of 100 acres. There are 15 professors, instructing in four courses, chemistry, engineering, electricity, and agriculture. This institution has 50 State scholarships, free of tuition charge.

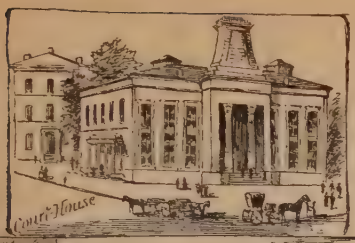
The Stevens Institute of Technology was founded by Edwin A. Stevens, who bequeathed $500,000 for the purpose, and also a block of land close to Castle Point, the beautiful Stevens estate at Hoboken. The institute opened in 1871, and has grown into success, having now 15 instructors and more than 200 students, besides a large number in the academy connected therewith.

JERSEY CITY, HOBOKEN, AND THE HUDSON RIVER.

The ancient (Dutch) Reformed Church has but one theological school in America, founded in 1784, and established near Rutgers College in 1810. It is richly endowed, and has six professors and 60 students, adhering to the Belgic Confession and Heidelberg Catechism. The German Theological Seminary of Newark is a Presbyterian institution, at Bloomfield. Drew Theological Seminary is a Methodist-Episcopal institution, endowed in 1867 with $250,000, by Daniel Drew, the famous New-York broker. It occupies an extensive domain at Madison, and has over 100 students. Seton-Hall College, at South Orange, is a reputable Catholic institution, founded in 1856, with collegiate, commercial and ecclesiastical courses. Vineland has a Catholic college and theological school, and Newark has a college. The Military Institute is a boarding-school among the ancient elms and chestnuts of the Bonaparte park, at Bordentown. Burlington College (founded in 1846) and St. Mary's Hall are Episcopal schools at Burlington. There are academies of high grade at Hightstown, Morristown, Plainfield, Pennington, Beverly, Hackettstown, Hoboken, Lawrenceville, Bridgeton, Belvidere, Blairstown, and other places.

LONG BRANCH: MONMOUTH-PARK RACE COURSE.

Chief Cities.—One-fifth of the population is foreign, with 100,000 Irishmen, 80,000 Germans and 40,000 Englishmen. Newark, nine miles west of New York, is an enterprising city on the plains of the Passaic, four miles from Newark Bay, with eleven banks, 120 churches, and 400 factories. $60,000,000 in rubber, leather, jewelry and other goods, and flour and beer, are produced here yearly. Jersey City has several lines



of steam ferry-boats across the Hudson River to New-York City. The great railways to the south and west terminate here, and also several important steamship lines. Hoboken, on the Hudson, just above Jersey City, is also a terminal point for railway and steamship lines. Trenton (Trent's-town, for Col. Wm. Trent, its owner in 1720), the capital, is a clean, thrifty and pleasant city, on the Delaware, with great potteries and other

NEWARK: COURT-HOUSE. NEWARK AND THE PASSAIC RIVER.

NEWARK: POST-OFFICE.

works. Gen. McClellan is buried in the Riverview Cemetery. Camden faces Philadelphia, across the Delaware, and has ship-yards, factories, and immense market-gardens. Paterson, at the falls of the Passaic River, is the chief American seat of the silk-making industry, in which it has 8,000 operatives, besides thousands in cotton, woolen and velvet mills. Elizabeth has the suburban homes of many New-York merchants. New Brunswick, on the Raritan, contains immense rubber and harness manufactories. Among other cities are Rahway, with its great carriage-factories; Perth Amboy, once the capital of New Jersey and a rival of New York; Princeton, with the graves of Jonathan Edwards and Aaron Burr; Millville, with glass-factories; Plainfield, a pleasant hat-making city; Phillipsburg, with iron-works on the Delaware; Orange, with the pleasant homes of New-York merchants, under the long shadow of Orange Mountain; Morristown, a dignified old shiretown, with the villas of many New-York gentlemen; Burlington, an ancient Quaker town, on the Delaware, bombarded by British gunboats in 1776; Bordentown, another pleasant little river-city; Bridgeton, on the Cohansey, not far from Delaware Bay, with iron, glass and woolen mills; Vineland, a New-England colony on the great pine-plains of South Jersey; Bayonne, on New-York harbor, with enormous petroleum refineries; and Mount Holly, in the Rancocas Valley.

NEWARK: AMERICAN INSURANCE CO.

Insurance is a prominent feature of the advanced civilization of New Jersey, and there are several strong companies here, doing a large and profitable business. The foremost fire-insurance company of New Jersey is the American Insurance Company, located at Newark. It was founded away back in 1846, and has had an uninterrupted career of success. Fortunately for the company, its operations were confined almost entirely to New Jersey until after the Chicago and Boston conflagrations. In 1873 it entered a few outside cities, and in 1880 extended operations generally throughout the country, on a conservative basis, in approved localities, with agents in the chief Northern and Western cities, and on the Pacific Coast. A noteworthy fact about the American is that its surplus not only exceeds

NEWARK: MUTUAL BENEFIT LIFE-INSURANCE CO.

$1,000,000, but it is larger than the cash capital and the liabilities united. The American leads all other New-Jersey companies in total assets as well as in surplus; although no company is more conservative and none less ostentatious.

Among the oldest and strongest insurance corporations of America, whose immense and beneficent operations have amazed the financial world, the Mutual Benefit Life-Insurance Co., of Newark, occupies a peculiarly interesting position. Among its principles are the following: It has no capital, but is conducted on the purely mutual plan, for the insurance of lives upon the regular or level premium system. All profits are divided among the policy-holders, in the form of yearly dividends. The policies are non-forfeitable, and incontestable after the second year; and the full reserve value of a lapsed policy is applied by the company to keeping the insurance in force, or (if preferred) to the purchase of a paid-up policy for a reduced amount. The Mutual Benefit was founded in 1845, and has collected from its policy-holders $133,000,000, and paid out to its policy-holders $60,000,000 for policy claims, $15,000,000 for surrendered policies, and $39,000,000 for dividends. It has 65,000 policies, covering $172,000,000, and its assets are $47,000,000, with a surplus of $3,500,000. Amzi Dodd is president, and James B. Pearson, vice-president. There is no sounder or more conservative corporation in America.

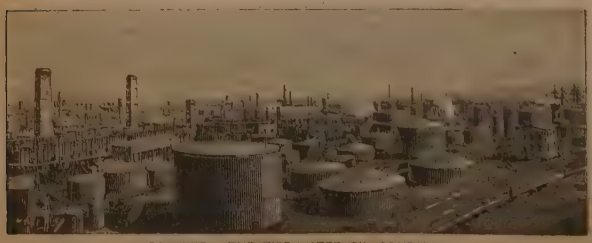
The Railroads of New Jersey enjoy a remarkable prosperity, since they join the greatest cities in America. The Camden & Amboy line received incorporation in 1830, and for its first six months (in 1833), the trains were drawn by horses. The United New-Jersey Railroad runs from Camden to Amboy (61 miles), from Philadelphia to Jersey City (88 miles), and from Trenton to Manunka Chunk (68 miles). The Central Railroad of New Jersey runs from Jersey City to Phillipsburg, from Elizabeth to Perth Amboy and Long Branch, and from Long Branch southwest to Delaware Bay. Several lines cross from Philadelphia to Cape May, Atlantic City and the summer-resorts farther up; and other routes connect New York with the favorite beaches from Sandy Hook to Barnegat Bay. The Baltimore & Ohio, Pennsylvania, and Atlantic Coast lines traverse the State.

ARTHUR-KILL BRIDGE.

Canals. – The famous old Morris Canal formerly had a large coal-carrying trade over its 101 miles from Jersey City to Phillipsburg. It cost $3,500,000, and was opened in 1831. The Delaware and Raritan Canal (New Brunswick to Bordentown) cost $4,500,000.

The Manufactories of New Jersey number over 7,000, with 130,000 operatives, $110,000,000 capital, $50,000,000 yearly wages, and a product of $250,000,000 yearly.

Within the last 30 years the transporting and refining of petroleum has grown from nothing to be one of the leading American industries. Foremost among the great companies engaged in this business are the Tide Water Pipe Company and its off-shoot, the Tide Water Oil Company. The former company, organized in 1878 by B. D. Benson, of Titus-



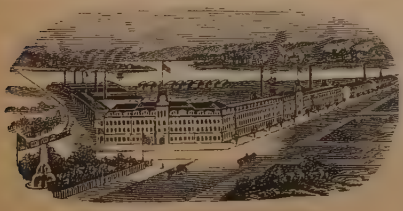
BAYONNE: THE TIDE-WATER OIL COMPANY.

ville (Pa.), who became its first president, gathers in the Pennsylvania oil-regions 7,500 barrels of crude oil a day, and transports it through 320 miles of six-inch pipe (under a pressure of 1,200 pounds a square inch) to Bayonne (N. J.), where it is delivered to the Tide Water Oil Company. This latter corporation was formed in 1889 by the consolidation of four smaller companies. Its works, located on New-York Harbor, form the largest single oil-refinery in the world, and are valued at $6,000,000. They cover 107 acres, and have an annual capacity of 3,000,000 barrels of crude oil. At its docks are berths for 30 vessels, with a depth of water sufficient for the largest ocean steamers. Here is often seen a fleet of fine East-India clippers, loading with case oil for countries of the far East, together with great bulk steamers loading for England and Germany. So good are the facilities that a bulk steamer carrying 1,200,000 gallons has been loaded in 14 hours. There are 1,800 men employed. The crude material used yearly includes 125,000 tons of coal, 13,500,000 pounds of sulphuric acid, 20,500,000 feet of lumber for cases, 8,800 tons of tin-plate for cans, and 4,000,000 white-oak staves for barrels. The company manufactures all petroleum products, but makes a specialty of illuminating oils and naphtha, paraffine and lubricating oils. It is the only powerful rival of the octopus Standard Oil Company, and how great a rival it is may be judged from the fact that its annual sales amount to over $9,000,000.

BAYONNE: THE TIDE-WATER OIL COMPANY.

In making hats, New Jersey is second only to Connecticut, turning out yearly 9,000,000 hats, from 82 factories. Fifty glass-furnaces employ 5,000 persons, with an output of $3,000,000 a year. Silk-mills employ 13,000 persons, producing $17,000,000 a year.

One of the most impressive industrial establishments in America is the enormous sewing-machine factory of the Singer Manufacturing Co., lying between the beautiful Singer Park and Newark Bay, at Elizabeth. These spacious and handsome brick buildings cover 18 acres of floor space, and stand among and around lawns and trees, the entire estate including 32 acres, with four miles of railroad upon it, and one side bounded by a long dock frontage, where the company's steamboat takes on freight daily. The works employ 3,300 persons, and make 1,500 sewing-machines a day. When Isaac Merritt Singer, poor and unknown, but great in faith, set his first rude sewing-machine in operation, at Boston, in the year 1851, he conferred an inestimable benefit on the human race. After the late Edward Clark became Singer's partner, the business was moved to New York, where the chief offices remain, though the main American works have been at Elizabeth since 1873. The company has a vast capital, with stores and salaried men in every civilized and uncivilized land, over 1,000 American branches, two large wood-working factories in this country, and a factory in Canada, another in Australia, and immense works near Glasgow, Scotland, employing 4,500 workers. This company has invented and controls more special processes used in manufacturing and has produced a greater variety of machines than all other houses in its line combined. Nearly ten million of its machines are now in use, and the ambition of the company is to make a million machines a year. It is said that the employees of the Singer Company, including all those engaged in the executive, manufacturing, operating and selling departments, will outnumber those of any other one concern in the world, as they form an industrial army of 40,000 workers.



ELIZABETH: SINGER MANUFACTURING CO.

JERSEY CITY: LORILLARD TOBACCO WORKS.

The Lorillard Tobacco Works in Jersey City are the oldest in America and the largest in the world for making tobacco in every variety. This pre-eminent industry was founded in 1760, by Pierre Lorillard, an enterprising French Huguenot, who opened a little tobacco-shop on the Boston turnpike (now Chatham Street), in New York. His snuff mill, on the Bronx River, made all the animals sneeze for miles around (or so the newspapers declared). The business grew amain, under the command of Pierre Lorillard, and then his widow, and then his sons, until now in the hands of his grandsons and great-grandsons it employs 4,000 persons in connection with its enormous and unrivalled industries, and makes nearly 25,000,000 pounds a year. The structure in which fine-cut and smoking tobacco and snuff are made covers a full city square, and the plug-tobacco factory covers two squares. P. Lorillard & Co. have experts in the South, sampling, buying and forwarding the crude tobaccos; and the manufactured articles are sent all over the world, in enormous quantities. This house has paid the United-States Government, in the last 25 years, over $50,000,000 in taxes. The Lorillards look carefully after the comfort of their operatives, with light and airy work-rooms, a library and a dispensary, and evening and sewing schools.

A wise philosopher once said "The love of soap is the test of civilization, and the love of refined soap marks an advance in culture." From this reasonable point of view, one of the powerful cultivating agencies in modern times is the old and substantial house of Colgate & Co.,—the unrivalled fine soap makers of America—whose Cashmere Bouquet and many other exquisite toilet soaps and perfumes are used in immense quantities all over civilized America and Europe. This industry began in 1806, on the site occupied to-day by its offices, in John Street, New York, and its works now cover an entire block in Jersey City, and employ 700 hands. In Southern France alone, 90 tons of roses are gathered every year for Colgate & Co., to be made up into the most delicate and fragrant extracts and colognes, toilet soaps and sachet powders, pure and hygienic in composition and enduring in perfume. These articles have almost entirely supplanted European soaps in America, and have also won great success abroad.

JERSEY CITY: COLGATE & CO.

The oldest and largest bottle-glass manufacturers in America are the Whitney Glass Works, making green, flint, and amber bottles and stoppers, and bottles for proprietary medicine-makers, apothecaries, stationers, perfumers and bottlers. This industry was founded in 1775, by seven brothers named Stanger, practical glass-blowers from Europe, who foresaw that America, then on the eve of the long Revolutionary War, would need to make her own glassware. At the close of the war, Col. Heston, an officer of the Continental army, bought and enlarged the works, which are now managed by his great-grandsons, Thos. W. Synnott and John P. Whitney, the former being the presi-

GLASSBORO: WHITNEY GLASS-WORKS.

dent and the latter the treasurer of the company. The works were incorporated in 1887, with a capital of $500,000. Within ten years the plant has more than trebled its production, and now employs 1,200 hands, oftentimes working night and day. The great factory at Glassboro has the five largest patent tank-furnaces in America, with protected working parts, making the metal more solid and of a handsomer color than the old processes could. The company also has factories at Camden and Salem, N. J. The main offices and warehouses are in Philadelphia, with branches at New York and Boston, and agencies in other cities.

CAMDEN: R. D. WOOD & CO.

Southern New Jersey has the greatest American industry in its special lines of cast-iron pipe and gas and water apparatus in the foundries of R. D. Wood & Co., at Millville, Florence and Camden, employing 1,300 men, and making all kinds of cast-iron pipe, fire hydrants and valves, gas machinery, hydraulic and pumping machinery and travelling cranes, sugar-house work, Geyelin's duplex turbine-wheels, large loam-work, Eddy valves, Matthew's fire-hydrants, lamp-posts and other heavy appliances. They also design and construct enormous gas-holders, either single-lift or telescopic (without heavy supporting frames), purifiers, condensers, and scrubbers. The casting capacity is about 600 tons a day. These articles are sent all over the United States and Canada, and to Cuba and Central and South America. San Diego and Tacoma, Cienfuegos and Caracas, Ottawa and Halifax alike have R. D. Wood & Co.'s work. The plant at Millville was started by the father of the present owners, in 1803, when the heavy timber of South Jersey made a charcoal furnace possible.

MILLVILLE: R. D. WOOD & CO.

The patent water-tube steam-boilers of the Babcock & Wilcox Co. are constructed for the United States in Elizabeth, and shipped from there to all parts of the country. The inventor of the principle of inclined water-tubes connecting water-spaces front and rear with a steam space above was Stephen Wilcox, in 1856. The joint patent of George H. Babcock and S. Wilcox was given in 1867, the main idea being to insure safety from explosion, but (as now developed and secured by upwards of 100 patents) also large draught area, complete combustion, thin heating surface, quick steaming, great durability, and economy of steam. Babcock & Wilcox boilers are used by many of the largest concerns in the world, such as Spreckels's, the Cardenas, the Brooklyn, and the Boston Sugar Refineries, the Vienna Imperial Gas Association, the Vienna Opera House, the Deptford electrical plants, London, the great "Popp Co." in Paris, the Pennsylvania Steel Works, the New-York Steam Co., the Edison Co., the Hotel Ponce de Leon, and many others, besides a long list of factories of all kinds. The resources of the Babcock & Wilcox Co. are above $1,000,000, and their sales in 1890 amounted to 125,000 horse-power. This is the preëminent steam-boiler manufacturing establishment in the world, having factories also in Scotland, France, Germany and Austria. The main offices are in New York and London, and there are numerous branch offices in the United States, and in all parts of the globe, receiving orders for these exceedingly ingenious and valuable steam-boilers.

ELIZABETH: BABCOCK & WILCOX CO.

EAST NEWARK: HARTSHORN SHADE-ROLLER WORKS.

The Hartshorn family entered the shade-roller business in 1850, and in 1864 Stewart Hartshorn put an end to centuries of general annoyance from the old and troublesome cord-and-ratchet devices, by inventing the self-acting pawl-spring shade-rollers, which are now in use all over the civilized world. In 1872 the business was moved from New York to a spacious new factory, built at East Newark for the purpose; and when even this large establishment became inadequate to supply the demand, in spite of enlargements, new factories were erected at Muskegon (Mich.) and Toronto (Canada). In these works seven tenths of the self-acting shade-rollers of the world are made. All along new patents for many improvements have been taken out. Medals have been received at eight world's fairs, including the Philadelphia Centennial, Paris, and Barcelona. Stewart Hartshorn was the founder of, and is now actively engaged in enlarging and building up Short Hills (N. J.), an ideal home village, where he has great investments.

One of the greatest business enterprises which have now entered upon their second century is the Barbour Bros. Co., founded in 1774, and now employing over 5,000 persons in its mills at Lisburn (Ireland), Ottensen (Germany), and Paterson, N. J. The industry was established in America by Thomas Barbour, in 1854, and has salesrooms and storehouses at New York, Boston, Chicago, Philadelphia, St. Louis, San Francisco and Montreal, with sales all over the continent, amounting to $3,000,000 a year. The Barbour Irish flax threads are used by boot and shoe and harness makers, book-binders, glove-makers, carpet-mills, clothiers and tailors, fishermen, embroiderers, and everyone needing linen thread. Two valuable specialties are the twines made here for harnessing Jacquard looms, and for McKay machine sewing. At the Paterson mills the Irish flax is hackled and drawn down fine, twisted by women, tested and dyed, balled and wound on spools by automatic machinery. The plant is said to be double that of any other linen-thread maker in the world.

PATERSON: BARBOUR BROS. CO.

One of the most useful of recent inventions is celluloid, a tough, elastic and fairly hard material of various colors. It is not fibrous, but homogeneous, and grows harder by age. The Celluloid Company has large works at Newark, where 300 people are busied in making umbrella handles, collars and cuffs, mouth-pieces for pipes, manicure implements, and hundreds of familiar articles, useful and ornamental, in imitation of amber, coral, malachite, ivory, tortoise-shell, and other precious materials. The celluloid is as well adapted to these uses as the materials which it exactly simulates, and more durable, besides being furnished at a small fraction of the cost. Collars and cuffs are made of linen, covered with a thin coating of pure white celluloid. The ingenious processes supply the people with a vast variety of beautiful and durable articles, at very low prices. The name "Celluloid" has been adopted by the company as its trade mark, and its right to it has been established by the Courts. The Celluloid Novelty Company retired from business in 1890, and was succeeded by the Celluloid Co., whose main offices are in New-York City. M. C. Lefferts is president, and F. R. Lefferts, treasurer.

NEWARK: THE CELLULOID CO.

HISTORY.

The first white man in New Mexico was an officer of the ill-fated Florida expedition of Narvaez, Cabeza de Vaca, who with three companions crossed Texas and the Pueblo region in 1536, and reached Spanish Mexico. Three years later, Fray Marcos de Nizza visited Zuñi; and in 1540 Coronado, the governor of New Galicia, marched into New Mexico, and conquered many towns by siege or assault. Bands of Franciscans founded missions among the savage tribes, and many won the crown of martyrdom. Their labors were rewarded by the rise of 40 churches, attended by 36,000 native communicants. The first settlement was made by Don Juan de Oñate, of Zacatecas, who marched from Mexico in 1598 with 400 Spanish soldiers and 130 families. The colony arose on the north of the Rio Chama, and bore the name of San Gabriel de los Españoles. In 1605 the present capital was founded, under the name of La Ciudad Real de la Santa Fé de San Francisco. In 1680 Po-pe raised his Indian brethren in revolt, and drove the Spaniards from the territory. For twelve years the Pueblos defeated every advance of the Spaniards, but Gov. Diego de Vargas occupied the country with his army in 1692.

When Mexico became independent, in 1822, New Mexico was governed by Political Chiefs, who, after 1835, were appointed, instead of elected. The latter innovation, and a new direct taxation, caused the north to rise in revolt, and the rebels defeated Gov. Perez, and killed him and most of his officials, in 1837. Gen. Manuel Armijo afterwards crushed the rebellion, and held the governorship till 1847, when Kearny's Army of the West, marching 900 miles across the plains, from Missouri, occupied the Territory. New Mexico west of the Rio Grande belonged to the region ceded by Mexico to the United States in 1848; and the part east of the Rio Grande was ceded by Texas in 1850. In the latter year Congress organized

STATISTICS.

Settled at	San Gabriel.
Settled in	1598
Founded by	Spaniards.
Organized as a Territory,	1850
Population in 1860,	93,516
In 1870,	91,874
In 1880,	119,505
White,	108,721
Colored,	10,844
American-born,	111,514
Foreign-born,	8,051
Males,	64,496
Females,	55,069
In 1890 (U. S. Census),	153,593
Population to the square mile,	1.0
Voting Population (1880),	34,076
Net Public Debt,	$900,000
Taxable Property,	$17,000,000
Area (square miles),	122,580
Delegate to Congress,	1
Militia (Disciplined),	835
Counties,	16
Post-offices,	262
Railroads (miles),	1,324
Manufactures (yearly),	$1,300,000
Operatives,	600
Farm Land (in acres),	631,131
Farm Land Values,	$5,500,000
Farm Products (yearly)	$2,000,000
Public Schools, Average Daily Attendance,	12,300
Newspapers,	47
Latitude,	31°20′ to 37° N.
Longitude,	103° 2′ to 109° 2′ W.
Temperature,	—15° to 115°
Mean Temperature (Santa Fé)	51°

TEN CHIEF PLACES AND THEIR POPULATIONS. (Census of 1890.)

Santa Fé,	6,185
Albuquerque (New),	3,785
Las Vegas,	2,385
Las Cruces,	2,340
East Las Vegas,	2,312
Silver City,	2,102
Albuquerque (Old),	1,733
Socorro,	1,601
Raton,	1,255
Gallup,	1,208

SANTA CRUZ: SHRINE AND CHURCH.

this Territory, covering New Mexico, as it now is; Arizona, north of the Gila; Nevada, up to 37°; and the part of Colorado between 103°, the Arkansas River and the Rocky Mountains. In 1854 the Mexican cession of 1853 became part of New Mexico. The Colorado section was taken off in 1861; and Arizona and southern Nevada in 1863.

The trade between Missouri and New Mexico, on the Santa-Fé Trail, began early in this century; and the freight was carried on pack-animals until 1824, when mule and ox wagons ("prairie schooners") came into use. Cotton cloths, dry-goods, and hardware were brought to the Southwest, and exchanged for Chihuahua silver bullion, New-Mexican gold-dust, buffalo-robes, blankets and wool. Up to 1831 the American caravans started from Franklin (now Boonville), on the Missouri; and afterwards from Independence. The usual route was up the Arkansas, then the Spanish frontier, which was crossed 400 miles out, after which the trail led across to the Cimarron, and struck for the great landmark of Wagon Mound, whence it passed Las Vegas and entered Santa Fé. The 800 miles of the journey outward took 70 days; the return was made in 40 days, flying light. The caravan left the rendezvous at Council Grove in May, and reached Santa Fé in July, starting back in August. The attacks of Indians made it necessary to send strong escorts of dragoons, at times, for over $2,000,000 worth of goods were carried in a single caravan. As early as 1846 this trade employed 500 men, 400 wagons, 1,700 mules and 2,000 oxen.

PUEBLO VILLAGE.

With singular loyalty to the Government that had conquered them, the New-Mexicans took up arms for the Union, in 1861. Kit Carson, St. Vrain and other gallant frontiersmen helped to organize the Spanish volunteers and militia, under the Stars and Stripes. Some of the officers of the old army joined the South; but of the 1,200 regular soldiers in New Mexico not one abandoned his allegiance. The governors, Rencher and Connelly, and the Legislature stood fast for the Union; expunged the law protecting slavery; and called out the militia to defend the National property. Early in 1862 Gen. H. F. Sibley advanced with 2,300 Texans, and defeated Col. Canby's larger Federal army at Valverde, routing his troops and taking their artillery. The heroic Texan infantry stormed and captured the regular battery with revolvers. Among the Union forces were Carson's First, Pino's Second, Valdez's Third, and parts of the Fourth and Fifth Regiments of New-Mexico volunteers. The Federals lost 263 men; and a lofty monument to these patriots adorns the Plaza at Santa Fé. The Confederates then occupied Socorro and Albuquerque, and advanced northward, intending to seize the military supplies at Fort Union, and to cut off transcontinental communication between California and the East. But Slough's First Colorado (Pike's Peakers) and the New-Mexican volunteers defeated them at La Glorieta (Apache Pass), and they retreated down the Rio Grande. Sibley occupied Santa Fé for a time; but the people were so hostile, and provisions so scanty, that he retreated across the mountains and the Jornada del Muerto to Texas, having lost half his army. Gen. Carleton's California column, the First and Fifth California Infantry, the First California Cavalry, and a regular battery, marched eastward from Los Angeles across Arizona, in 1862, and occupied Las Cruces and Mesilla, advancing 240 miles into Texas, as far as El Paso, Fort Quitman and Fort Bliss. This strong occupation held New Mexico for the Union safely, and most of the 6,000 local volunteers were disbanded.

PUEBLO OF SANTA CLARA: ANCIENT CHURCH.

With the Atchison Railroad came an army of adventurous Americans, whose achievements in stock-raising and farming, mining and town-building, aroused the Spanish residents to new life and activity, and the development of the Territory has since gone forward rapidly, especially since the subjugation of the Apaches. The uncertainty as to land-titles has worked against the settlement of New Mexico. The United States, by the treaty of Guadalupe Hidalgo, agreed to protect property-holders; and 10,000,000 acres are now claimed under old Spanish grants, but cannot be assured until the Territory is fully surveyed and titles confirmed.

SANTA FÉ: THE OLDEST DWELLING HOUSE IN THE UNITED STATES.

The Name, Nuevo Mexico, was given by Espejo, one of the early Spanish explorers, because of the resemblance of the country to the mining regions of Mexico. It is first met in Padre Rodriguez's *Testimonio*, in 1582–3. A popular pet name is THE SUNSHINE STATE, or *The Land of Sunshine and Silver*.

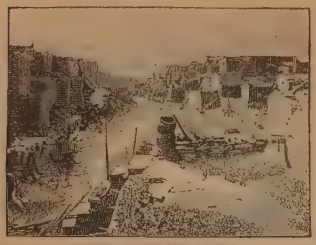
The Arms of New Mexico bear the American eagle, with its olive-branch and arrows, and the Mexican eagle, standing on the cactus and strangling a serpent. The motto is: CRESCIT EUNDO: "It increases by going."

The Governors included 76 Spanish and Mexican nobles and gentlemen. Then came the American Territorial governors: Charles Bent, 1846–7; Lieut.-Col. J. M. Washington (military), 1848–9; Maj. John Munroe, 1849–50; James S. Calhoun, 1851–2; Wm. Carr Lane, 1852–4; David Meriwether, 1854–7; Abraham Rencher, 1857–61; Henry Connelly, 1861–5; Wm. F. M. Arny (acting), 1865–6; Robert B. Mitchell, 1866–7; Wm. A. Pile, 1869–71; Marsh Giddings, 1871–5; Samuel B. Axtell, 1875–9; Lewis Wallace, 1879–82; Lionel A. Sheldon, 1882–5; E. G. Ross, 1885–9; and L. Bradford Prince, 1889–93.

SANTA FÉ; CHURCH OF SAN MIGUEL.

Descriptive.—New Mexico is larger than Great Britain and Ireland united, three times as large as all New England, and equal in area to New York, Pennsylvania and Ohio combined. Mountain-ranges traverse the Territory, and give diversity to its semi-Oriental scenery. The Sangre-de-Cristo range enters from Colorado, and runs nearly to Santa Fé, with Costilla Peak, 12,615 feet; Taos Peak, 13,145; Mora, 12,020; Truchas, 13,150; Jicarilla, 14,162; and Baldy, 12,661. The Raton Range runs eastward along the Colorado border. Below Santa Fé, the Chilili, Manzano, Oscuro, San Andreas and Organ Mountains form an almost continuous range on the east of the Rio Grande, finally crossing the river at El Paso, and entering Mexico. In the southeast are the Sacramento, Jicarilla, Guadalupe, and Hueco mountains, and the Sierra Blanca and Sierra Capitan. West of the Rio Grande line after line of noble peaks swells up to the westward until the Carrizo, Tunicha and Chusca Ranges form the continental divide of the Sierra Madre, whence streams flow to the Gulf of California and the Gulf of Mexico. The plateaus are covered with wild gramma and other grasses, but grow arid and desolate towards the west. Some of these plains are overspread with sage-brush, and others bear many leagues of piñon and stunted cedar. The mountains rise from vast plateaus of lava, and are deeply gashed by cañons, and dimpled by lovely park-valleys. The mean elevation above the sea is 5,600 feet, and 2,500 square miles are more than 10,000 feet high. Fully 14,000,000 acres are in mountains, and 4,000,000

TAOS PUEBLO.



ORAIBA: EASTERN COURT.

are irreclaimable deserts, or grazing lands, leaving 39,000,000 acres of irrigable domain. Two thirds of the Territory is open for settlement. East of the Rio Grande stretch frowning leagues of Mal Pais (or "Bad Country"), covered with lava, volcanic sand and salt-marshes. The Jornada del Muerto (or "Journey of Death") is a tract of 90 by 40 miles in area, between San Marcial and Rincon, surrounded by vast mountain-ranges, and once sadly celebrated for the number of men and animals who died of thirst on its lonely deserts. The broad San-Augustin Plains are in the west; and around Deming occur other level tracts of vast extent.

The Rio Grande, "the Nile of the New World," flows south 356 miles through the centre of New Mexico. After leaving the San-Luis Park, it rushes through a profound cañon in the lava-beds, and then follows a narrow valley to Fort Craig, beyond which much of its course lies through cañons down to Rincon. After a dry summer, the Rio Grande is dry for 100 miles above El Paso, the water having all been taken out by irrigating ditches. The Rio Pecos, 800 miles long, is a source of enrichment to the eastern counties. The Canadian River rises in the Sangre-de-Cristo Mountains, and flows east 200 miles in New Mexico. There are some fine farming lands in this section, and in the tributary valleys of the Vermejo and Little Cimarron, and in the Mora Valley, which is 65 miles long and five miles wide. The rivers of the west, tributary to the Colorado, are the Gila, San-Francisco and Zuñi, with valuable bottom-lands, which also appear along the San-Juan, in the far northwest. This pastoral country is carpeted with nutritious grasses, and the climate is so mild that no winter-shelter is needed for the flocks. In former times, cattle and sheep ranged the free plains for leagues, but now in many sections the herds are confined to fenced tracts. The Great Plains enter on the northeast, and are prolonged by the famous Llano Estacado, or Staked Plain, a treeless and waterless grassy plateau of 44,000 square miles, nearly 5,000 feet above the sea. In some localities water cannot be found for 40 miles, and the cattle drink but twice a week. The Staked Plain derives its name from the stiff boles of the yucca plant. Sheep are found in every county, and numbered 2,000,000 in 1888, producing 8,000,000 pounds of wool yearly. Vast flocks are owned by the Navajo Indians. In the old days, a million sheep were driven hence to Mexico every year, and sold for 25 cents a head; but now they are sent to the States, and bring $2 each. They are small and coarse-wooled, and feed on gramma and bunch grasses and sage-brush. With the occupation of large areas by immigrants, the cattle-ranges have been restricted, but the number of cattle has steadily increased, and is now estimated at above 1,200,000.

THE MESA: THE SITE OF ZUNI.

WOLPI: DANCERS' ROCK.

New Mexico has an abundant supply of timber, the tall, straight pines of the highlands, the cottonwoods and quaking aspens, cedars and oaks, walnuts and maples, and others. The higher mountains bear great forests of evergreens. The goblin-like yucca palm of the deserts is valuable for paper-making.

The Climate is remarkably dry, salubrious and bracing, with an atmosphere of great clearness and purity. Meat hung up outdoors dries without taint.

A MOQUI VILLAGE.

Santa Fé sometimes experiences as cold weather in winter as New York, because it is higher than the top of Mt. Washington. The towns farther south are lower, and hence much warmer. There is a period between mid-July and mid-September, when the sunny mornings are followed by long showery afternoons. Snow rarely visits the lowlands; and the general rainfall on the plains, of from eight to 22 inches, is inadequate for farming purposes. There are fewer deaths here from tubercular diseases than anywhere else in the United States. The hot days of the lowlands are not debilitating, on account of their dryness, and are followed by cool and bracing nights. The climate is healing for people with consumption, asthma, bronchitis, Bright's disease and general debility; but aggravates rheumatism, catarrh and heart-disease. Almost any variety of temperature may be found by changing altitude, from the Italy of the valleys to the Norway of the Sierras. The air is so clear that it is difficult to estimate the distances of visible objects.

Farming.—The narrow valleys of the Rio Grande, San-Juan, Pecos, Canadian and other rivers are dowered with arable land of unusual fertility, prolific in grain and vegetables. The fruits are famous for their extraordinary size and beauty, and include vast quantities of grapes, peaches, apples, apricots, pears, melons, and quinces. The yearly product of wine exceeds 240,000 gallons. The Mesilla Valley, 70 miles long, is one of the richest farming countries in the world, especially for grains, fruits and grapes. The temperature never descends below 15°, and snow seldom falls, and never remains. The valleys are composed of a rich sandy loam, light and porous, and very productive of corn, wheat, barley, oats and vegetables. The onions and sweet and white potatoes are prodigious in size, and cabbages sometimes weigh 60 pounds each. Beans grow so profusely as to form the chief diet. The cereal crop of New Mexico is greater than those of Colorado or Montana.

ALBUQUERQUE: THE CATHEDRAL AND PLAZA.

Mining.—The New-Mexican output of bullion is continually increasing. In 1886 it was $3,822,000; in 1887, $4,229,000; in 1888, $6,220,000; in 1889, $8,110,000. Precious metals are found in the hill country, and were extensively mined by the Spaniards, until 1680, when the victorious Pueblos filled up all the shafts. The Moreno gold placers of Elizabethtown produced much treasure; and the region of Pinos Altos and Silver City, in the southwest, has also been generous. Gold-mines are worked at many points, but chiefly from placers, and there are large milling and smelting plants. Silver and lead are mined at Kingston, Magdalena, Cerrillos, Cook's Peak, and Sierra Blanca. The ores are less rich, but also less refractory, than those of Colorado. The extensive coal-fields of Los Cerrillos supply localities as far away as Missouri and Mexico, with valuable anthracite, and produce bituminous coal also. In the vicinity are promising deposits of iron, copper, lead, zinc and silver. White Oaks has contiguous deposits of coal and iron, with gold and other valuable minerals. The Gallup coal-mines produce 300,000 tons a year. There are coal-mines at Blossburg and Amargo, in the north, and at San Pedro, near Santa Fé. The copper-mines at San Pedro have produced at the rate of $700,000 a year, and there are valuable deposits at Santa Rita. Elsewhere are found

CHAMITA: OLD MILL.

RATON AND ITS SURROUNDINGS.

marl and gypsum, zinc and manganese, with lead in the Organ Mountains, iron at Pinos Altos and Embudo, copper in the Mogollon, Manzano and Picuris Mountains, and tin in Rio-Arriba County. The close-grained red sandstone of the Rio-Grande Valley affords a handsome building material; and there are valuable deposits of limestone, marble and slate. The turquoise-mines, 25 miles south of Santa Fé, were worked during the Spanish occupation, and the handsomest turquoise in Europe (now in the regalia of Spain) came from this wilderness.

The Las-Vegas Hot-Springs bubble out on a plateau of the Rocky Mountains, 6,767 feet high, and have been used as a health-resort since 1846. The great Montezuma Hotel has been replaced by the Phœnix Hotel, one of the finest in the West. There are 40 springs, the hottest being 130°; and the mineral constituents include chlorides, sulphates, and carbonates of sodium, calcium and magnesium. The baths are of various kinds, mud, medicated and others, in a spacious red-granite bath-house; and people also drink the waters freely. Benefit is derived by sufferers from rheumatism, gout, skin diseases, debility, and other maladies. The winters are mild, dry and windless; and the noble scenery of mountain and plain, the attractions for hunters and anglers, and the strange traditions of the Mexican country afford a variety of interest. Among the other hot springs with hotels and accommodations are the Ojo Caliente, Jemez, San Antonio, Hudson's Hot Springs, Baca's Soda Springs, and the Aztec mineral spring, near Santa Fé.

Government.—The governor and secretary are appointed by the President. The council of twelve and the house of representatives of 24 members make up the legislature (usually Republican), elected biennially. The legislature is almost entirely composed of natives, naturally eloquent and naturally economical, and 33 out of 36 of them understanding the English language. There are six territorial officials, and groups of minor county officials. The Supreme Court has four justices, and there are also probate and district courts. The new Territorial Capital at Santa Fé was erected at a cost of $250,000, and is of buff sandstone. The Territorial Library contains 10,000 volumes. The *New-Mexican* Printing Co. at Santa Fé publishes the oldest newspaper between the upper Arkansas and Colorado Rivers; prints the territorial laws in English and Spanish; and has a book-bindery. There are three Spanish papers published at Santa Fé, one at Taos, and one at Las Vegas. The 28th Legislative Assembly created the following institutions, and levied taxes for their support: The Agricultural College, near Las Cruces (now open); the School of Mines, at Socorro; the University of New Mexico, at Albuquerque; and the Insane Asylum, at Las Vegas. The New-Mexico School for the Deaf and Dumb is at Santa Fé, where there is also a Territorial hospital, and the penitentiary.

The United-States army posts are Fort Bayard, with six companies; Forts Union and Wingate, five companies each; Fort Stanton, and Fort Selden, three companies each. The headquarters of the military district is at Santa Fé, where the infantry band makes pleasant music on the plaza. The garrisons include 1,500 men.

SANTA FE, FROM THE COLLEGE.

SANTA FE: RAMONA INDIAN SCHOOL.

Education is backward, but a strong and rising popular sentiment has insured a vigorous enforcement of the laws, and a careful expenditure of the school-taxes. Of the schools, 150 are English and 120 Spanish. The Catholic colleges at Mora, Las Vegas, Taos and Santa Fé have 600 students; and the Congregational (New West) academies at Albuquerque, Deming, Santa Fé and Las Vegas have 400. Santa-Fé Academy is Presbyterian; and Tiptonville Institute and Albuquerque College are Methodist. The Ramona Indian School (for Apaches) at Santa Fé is aided by the United-States Government. The building was designed by Stanford White, and is a memorial of Helen Hunt Jackson. The Catholic Church has a score of schools, the Presbyterians have 25, and others pertain to the Methodists. St.-Joseph's Catholic School, with 60 Pueblo children, is partly supported by the Government, which also has industrial schools for Indians at Santa Fé and Albuquerque.

It is natural that in this venerable Spanish province the Catholic Church has a predominant power, with handsome churches, profitable ranches and fruit-estates, and many hospitals and schools, conducted by Sisters of Charity, Sisters of Loretto, Christian Brothers, and Jesuits. The ruins of the churches of San Diego and San Joseph are still visible near Jemez, after 280 years; and the walls of the great stone churches of Abó, Cuaray and Tabira, built before 1640, tower over the salt lagoons of Manzano. The austere secret fraternity of the Penitentes still amazes Eastern tourists with the periodical self-mortifications of its adherents, and defies the attempts of the Catholic Church to exterminate it. Archbishop Lamy has nobly elevated the morals and education of the clergy from the time of his entry.

There are active presses at Santa Fé, Las Vegas and Albuquerque, printing many devotional and other books, in the Spanish language. *El Crepúsculo* ("The Dawn"), published at Taos in 1835, was the only newspaper in New Mexico before the American conquest.

The Population includes 100,000 Mexicans, with a highly educated and progressive aristocracy and a poorer class rising slowly in comfort and ability. The recent enormous increase in the value of their farm-products has enabled these people to improve their homes, clothing and stock. They are contented and unambitious, but generous, hospitable and agreeable. The semi-civilized Pueblo race has for several centuries occupied the fertile valleys of the northwest, with their communal houses of stone and adobe. They were once a numerous people, with villages also in Arizona and Chihuahua, Colorado and Utah; but a series of droughts and pestilences, and wars with the Apaches and the Spaniards, reduced them to a shadow of their former greatness. The Pueblos still occupy the oldest towns in America, and are a gentle, honest and industrious race of farmers. The native pottery, cotton and woolen clothing and blankets and other primitive manufactures are ingenious and interesting. The 8,000 Pueblos dwell in 19 villages, owning 906,000 acres of land by an absolute title, with many thousand horses, cattle and sheep, and productive farms. Of late years, since American law pacified the country, many of them have abandoned their fortress-villages, and dwell on their farms, wearing modern clothing, using the latest agricultural tools, and educating their children in the schools. They have also built roads, bridges and canals. One in 15 of them can speak a little English, but nearly all are familiar with Spanish. The Pueblo villages at the time of the Spanish occupation were single huge buildings of adobe or stone, perched on high and defensive ground, sometimes surrounding hollow squares, and composed of a great number of rooms, with larger council-halls. The lower stories had no doors nor windows, and the upper stories were visited only by ladders. Each village is ruled by an elective

SANTA FE: THE CATHEDRAL.

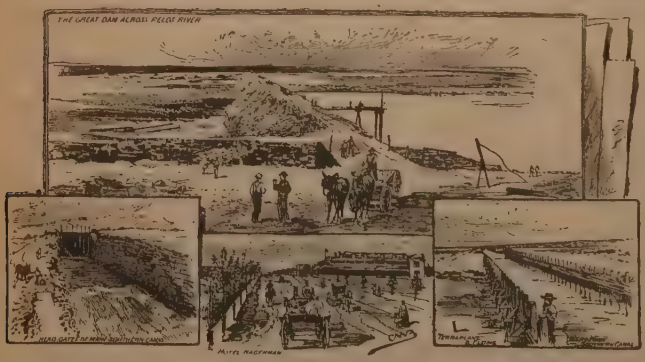
governor and three other officers. The 25,000 Navajoes own 8,000,000 acres, but do very little farming, preferring to earn money by selling horses and wool. They are famous for the fine blankets which they weave, and for the skill of their silver-smiths. Their wonderful Fire Dances form the most interesting of Indian ceremonials. There are two tribes of Apaches here: 800 Jicarillas, near Amargo, in the north; and 500 Mescaleros.

Chief Towns.—Santa Fé occupies a mountain-walled basin, 20 miles from the Rio Grande, and 7,019 feet above the sea, with a delightful climate. One half of the inhabitants are Mexicans, dwelling in low adobe houses, on narrow little streets. The Plaza has shops on three sides, and on the other the ancient Palacio del Gobernador (the seat of government since 1680), a long, low, white adobe building. Part of the old palace is used by the Historical Society of New Mexico; and in one of the rooms Lew Wallace wrote the famous novel *Ben Hur*. Las Vegas, with its horse-cars and telephones, foundries and railroads, colleges and churches, is an active city, and hopes to rival Denver. Albuquerque has two daily papers, street-cars, six churches, railroad machine-shops employing 2,000 men, and a central place in the great Rio-Grande Valley, with a valuable trade in corn and wine, wool and gold. Socorro is devoted to mining; Silver City, to smelting and reducing works; Las Cruces, to fruit-raising and farming; and Deming, to mining and stock-shipping.

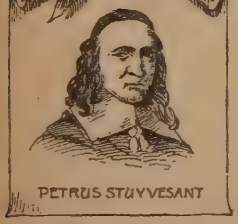
The Atchison, Topeka & Santa-Fé Railroad and the Southern Pacific Railroad traverse the entire Territory, from east to west. The Denver, Texas & Fort-Worth line crosses the northeast, and the Denver & Rio-Grande has many miles of track in the north.

Irrigation.—At certain seasons the Rio Grande floods down the valley with devastating power, and carries off enough water to have irrigated all summer long its vast water-shed. Plans are being matured for a system of wing-dams, storage-basins and canals, to save and distribute the waters; and many large and costly irrigating ditches are in operation.

The great canals of the Pecos Irrigation & Investment Co., built in 1889–91, distribute the perennial waters of the Pecos River, stored behind Cyclopean stone dams, over 200,000 acres of rich land. The canals are nearly 100 miles long, with laterals at every mile or so, opening into smaller channels. The company has a capital of $1,000,000, and owns no land, confining itself to distributing water, selling its water-rights at $10 an acre, with a yearly water-rental of $1.25 for each acre. The operating headquarters is at Eddy, named in honor of Charles E. Eddy, the prime mover in this enterprise. Here in two years has risen a town of 700 people, four churches, several stores, and commodious bank and hotel buildings. Thousands of acres in the valley have lately passed under cultivation, and produce unsurpassed fruits and vines, grains and vegetables. The company's dam across the Pecos is of rock, 1,050 feet long, and 181 feet wide at the base, and backs up the water for several miles. The enormous head-gates controlling the flow of water are raised or lowered by screws, and the main canal issues with a depth of seven feet and a width of over 45 feet. These invaluable irrigation works will make the Pecos Valley one of the greatest fruit regions and vineyards of the world; and the new railroads are opening up vast areas of exceptionally fertile and picturesque lands.



GREAT DAM AND CANAL, AND TOWN OF EDDY. PECOS IRRIGATION AND INVESTMENT CO.



HISTORY.

"To-day, in the sisterhood of States, she is an Empire in all that constitutes a great commonwealth. An industrious, intelligent, and prosperous population of five millions of people live within her borders. In the value of her farms and farm-products, and in her manufacturing industries, she is the first State in the Union. She sustains over 1,000 newspapers and periodicals, has $80,000,000 invested in church property, and spends $12,000,000 a year upon popular education. Upward of 300 academies and colleges fit her youth for special professions, and furnish opportunities for liberal learning and the highest culture; and stately edifices all over the State, dedicated to humane and benevolent objects, exhibit the permanence and extent of her organized charities. There are $600,000,000 in her savings-banks; $300,000,000 in her insurance companies, and $700,000,000 in the capital and loans of her State and National Banks. Six thousand miles of railroads, costing $600,000,000, have penetrated and developed every accessible corner of the State, and maintain against all rivalry and competition her commercial prestige."—HON. CHAUNCEY M. DEPEW.

Before the advent of the Europeans, the territory from the Catskills to Lake Erie, including also part of northern Pennsylvania, belonged to the powerful Iroquois Confederacy, the Mohawks, resting along the Hudson; the Oneidas; the Onondagas, with the national capital, near the site of Syracuse; the Cayugas; and the Senecas, guarding the western frontier. These were the Five Nations of the ancient explorers, which afterwards became the Six Nations, by the addition of the Tuscarora tribe, from North Carolina. Each of the tribes had several hereditary sachems (the national council, including 50 sachems), and retained the rights of self-government, the federal union being mainly for military protection and con-

STATISTICS.

Settled at	New York City.
Settled in	1613
Founded by	Dutchmen.
One of the Original 13 States.	
Population in 1860,	3,880,735
In 1870,	4,382,759
In 1880,	5,082,871
White,	5,016,022
Colored,	66,849
American-born,	3,871,492
Foreign-born,	1,211,379
Males,	2,505,322
Females,	2,577,549
In 1890 (U. S. Census),	5,997,853
Population to the square mile,	106.7
Voting Population,	1,408,751
Vote for Harrison (1888),	648,909
Vote for Cleveland (1888),	635,835
Net State Debt,	None.
Assessed Valuation of Property (in 1890),	$3,775,000,000
Area (square miles),	49,170
U. S. Representatives (in 1893),	34
Militia (Disciplined),	13,685
Counties,	60
Post-offices,	3,506
Railroads (miles),	7,661
Vessels,	5,258
Tonnage,	1,136,154
Manufactures (yearly),	$1,080,638,696
Operatives,	531,473
Yearly Wages,	$198,634,029
Farm Land (in acres),	23,780,754
Farm-Land Values,	$1,060,176,741
Farm Products (yearly)	$178,025,695
Public Schools, Average Daily Attendance,	637,487
Newspapers,	1,958
Latitude,	40°29′40″ to 45°0′42″ N.
Longitude,	71°51′ to 79°45′54″ W.
Temperature,	—23° to 100°
Mean Temperature (Albany),	48°

TEN CHIEF CITIES AND THEIR POPULATIONS (CENSUS OF 1890).

New York,	1,515,301
Brooklyn,	806,343
Buffalo,	255,664
Rochester,	133,896
Albany,	94,923
Syracuse,	88,143
Troy,	60,956
Utica,	44,007
Binghamton,	35,005
Yonkers,	32,033

TAPPAN:
HOUSE WHERE MAJOR ANDRE WAS TRIED.

quest. Collectively, they called themselves "The People of the Long House," whose eastern door was at the mouth of the Mohawk, and its western door at the Falls of Niagara. They also spoke of themselves as *Ongwe-Honwe*, "Men surpassing all others"; and deduced their origin from the serpent-haired god, Atotarho, and their confederate power from Hiawatha, an Onondaga demi-god. Many other celestial traditions were woven about their early history. The Iroquois built frame cabins and strong defensive works; tilled broad fields; made stone axes and knives; tanned leather; baked pottery; wore moccasins of deer-skin and shoes of elk-hide; and made ropes and baskets of bark, domestic implements of carved wood, armor of leather, money of sea-shells, and smoking-pipes of stone. Although they numbered but 12,000 souls, with 2,400 warriors (1,200 of whom were Senecas), their land was the Empire State of America, then, as now, for their indomitable war-parties swept victoriously alike through New England and Canada, Pennsylvania and the Ohio Valley, and from Nova Scotia to the mouth of the Mississippi. If the Europeans had not discovered America for another century, the Five Nations might have permanently subjugated all the Eastern tribes.

SCHUYLERVILLE:
SARATOGA BATTLE MONUMENT.

The Iroquois had a well-defined religion, with the Great Spirit as its head; and believed in immortality in the happy hunting-grounds. They respected woman; honored matrimony and the family; cherished children and aged people; and practiced a chivalric hospitality. They were natural orators and diplomatists; and in time this wonderful confederacy became the shield of English civilization in America, defending it with Roman courage against the French and their Indian allies. Queen Anne received five of their sachems at London, in 1710, with high honor; and Virginia, Pennsylvania, Connecticut, Massachusetts, and New York made treaties with the great council, securing gradually, by purchase and cession, eminent domain over all their territory. Dwelling now upon their reservations they number almost as many as in the glorious days of their sovereignty, and are increasing. Most of the Mohawks and Tuscaroras and a few Oneidas dwell in Canada; and 1,700 Oneidas are at Green Bay, Wisconsin. The 5,304 Indians now on reservations in New York include 2,700 Senecas, 540 Onondagas, 400 Tuscaroras, 200 Cayugas, and 300 Oneidas, besides 1,100 of the St.-Regis tribe, and 100 others.

NEW YORK: STATUE OF
ADMIRAL FARRAGUT.

Long Island was occupied by 13 small tribes of Indians—the Montauks, Jamekos, Matinecocks, Shinnecocks, and others—of whom a few score still remain, on the eastern point. There were other independent tribes on Manhattan and along the lower Hudson.

The discoverer of the sea-coast of New York was Henry Hudson, an English captain, in the service of the Dutch East-India Company, who sailed from the Texel, in the 90-ton vessel, *Half Moon*, in the year 1609. He explored various points, from Greenland to the Carolinas, and then sailed into the noble harbor of Manhattan. After ascending the Hudson to Albany, in the hope that it was the long-sought Northwest Passage, the intrepid discoverer returned to Manhattan, and thence to England. He met with a kindly welcome from most of the Indians whom he visited at several points on the river. Various Amsterdam merchants sent out the *Fortune* and *Tiger*, in 1612, to trade with the Manhattan natives for furs, and made great profits. But in 1613 the *Tiger* was burnt, while preparing to sail back to Holland,

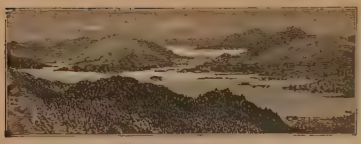
and her crew, under Adriaen Block, passed the winter at Manhattan, in log huts, and built another vessel, the *Onrust*, with which they explored the New-England coast, and then fared homeward to the Low Countries. Other knights-errant of commerce erected fortified trading-posts at Manhattan and Fort Nassau (Albany), in 1614; and in the same year the States General of Holland issued a charter to a company of Amsterdam and Hoorn merchants, covering the region between Virginia and New France, and naming it *New Netherland*. The colonists met the Iroquois chiefs at Tawasentha, and made a treaty of amity, which endured for over 100 years. The Dutch West-India Company was organized in 1623, with vast powers and prerogatives, and forthwith sent out the ship *New Netherland*, with 110 Walloon colonists, who reached Manhattan in May, 1623. The English laid claim to this region, because the discoverer was an Englishman, but their demands were placidly ignored; and then France also sent over a ship to take possession, but the artillery of the Dutch vessel *Mackerel* drove her out to sea. The Walloons scattered in groups over the country, some at Breuckelen (Brookland, now Brooklyn), others at Kingston, Albany, and Hartford, and on the Delaware. After the annual directorships of May and Verhulst, Peter Minuit came over on the *Sea Mew*, and became the first governor, purchasing Manhattan Island from the natives for $24, and erecting New Netherland into a province of Holland. Then followed the fortification of the town, and the wars with the neighboring Indians.

TARRYTOWN: OLD DUTCH CHURCH IN SLEEPY HOLLOW.

The order of patroons came into being in 1629, and imposed on the Hudson Valley a line of feudal chieftains, Van Rensselaer, Pauw, De Vries, Godyn, and other Dutch gentlemen. The Swedes menaced the colony on the south, and the Puritans on the east, and the Indians, enraged at repeated deadly forays by the Dutch troops, swept the outer settlements into ruin. Then came over as governor, the gallant soldier, Peter Stuyvesant, with his silver-mounted wooden leg; and inaugurated a wise, honest and despotic rule, visiting also the New-Englanders and Swedes, and conciliating the Indians. He named the capital of his colony *New Amsterdam*, and defended it by a palisade along Wall Street. In 1664 a British fleet and army took possession of the town (then numbering 1,500 inhabitants). Nine years later, a Dutch fleet of 23 vessels recaptured it, but it was restored to England a few months later; and Sir Edmond Andros ruled the conquered province with vigor for nine years. Meanwhile, the French, under Frontenac and the Marquis de Denonville, Viceroy of Canada, were campaigning against the Five Nations, and fought many a hard battle in interior New York. At last, in the dead of the winter of 1690, 200 Frenchmen and Canadian Indians attacked the Dutch village of Schenectady, and massacred 63 persons. New York and New England and the Iroquois assailed Canada by land and water, but were repulsed by the valiant Frontenac, who dealt heavy return blows in the Mohawk Valley, and at Onondaga Lake. These border-wars lasted for many years.

Some of the most tragic events of the last French War (1754–60), occurred on the New-York frontier, where the French occupied Fort Ticonderoga, on Lake George; Fort Frontenac (Kingston), on the St. Lawrence; and Niagara; while the English held Fort Edward, on the upper Hudson, and Oswego. In 1755, Sir William Johnson crushed Baron Dieskau's army, near Lake George; but a year later France destroyed Oswego; and in 1757, her troops captured Fort William Henry (on Lake George), whose garrison was massacred

IRVINGTON: SUNNYSIDE, THE HOME OF WASHINGTON IRVING.



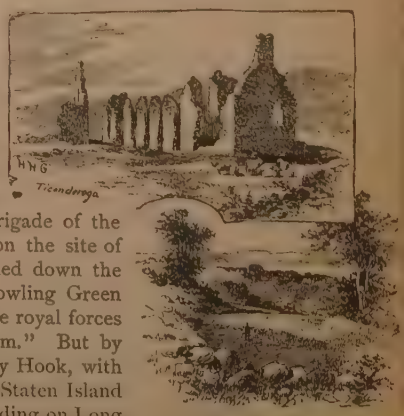
LAKE GEORGE.

by the Indians. The next year saw Col. Bradstreet's reduction of Fort Frontenac; but Lord Abercrombie and his magnificent army of 15,000 men suffered defeat, in an assault on Fort Ticonderoga. In 1759 the French were forever swept away from the frontiers, Johnson occupying Niagara, and Lord Amherst's army taking the abandoned fortresses of Ticonderoga and Crown Point, whose lonely ruins still overlook the fair blue narrows of Lake Champlain, under the shadows of austere highlands.

On the eve of the Revolution the Sons of Liberty in New York made many spirited protests against the royal aggressions, and fought the soldiers on Golden Hill, some weeks before the Boston massacre of 1770. The *Nancy*, bearing taxed tea from England, put about off Sandy Hook and sailed home again, not venturing to enter the rebel bay. The Provincial Assembly remained loyal to the King, until its final adjournment in 1775. The Sons of Liberty seized the custom-house and arsenal, and forbade vessels leaving the harbor with provisions for the British troops beleaguered in Boston; and the Green-Mountain Boys from Vermont captured the royal fortresses of Ticonderoga and Crown Point. Wooster's Connecticut militia marched to Harlem and went into camp, and overawed the Tories of New York. The frigate *Asia* lay in the stream and bombarded the city with destructive broadsides; and Gov. Tryon finally fled from the exasperated citizens, and set up his government in the cabin of this noisy war-ship, saying that "The Americans, from politicians, are now becoming soldiers." The New-York Line of the Continental army numbered five regiments.

The Six Nations were kept loyal to the Crown, by Sir William Johnson, an Irish knight, to whom the King had granted 100,000 acres in the Mohawk Valley. He married the sister of Brant, the famous Mohawk chief, and lived in rude baronial state at Johnson Hall. After his death, his nephew, Col. Guy Johnson, and his son, Sir John Johnson, entered the British service with 500 Indian warriors. Early in 1776, Gen. Schuyler marched up the Mohawk Valley with 3,000 militia, and disarmed Johnson's 300 Scottish retainers, and took away their artillery, to avert danger from the frontiers.

Gen. Montgomery advanced down Lake Champlain with 1,000 Americans, and reduced St. Johns and Montreal, but suffered defeat and death before the frowning walls of Quebec. Early in 1776 Gen. Charles Lee occupied New York with an American force. Washington led his army of 18,000 men from reclaimed Boston to defend New York; and on the 9th of July the Declaration of Independence was read aloud by an aide, in his presence, to a brigade of the Continental army, drawn up in hollow square on the site of the City Hall. The same day the citizens pulled down the equestrian statue of George III., erected on Bowling Green in 1770, and it was made into bullets, so that the royal forces for a time "had melted majesty hurled at them." But by August Gens. Clinton and Howe reached Sandy Hook, with 30,000 British and German troops; occupied Staten Island in force; and sent frigates up the Hudson. Landing on Long Island with 20,000 men, they crushed the 9,000 Americans under Putnam, holding the fortified lines back of Brooklyn, after a long and bloody battle. The 14th Massachusetts (Marblehead) Regiment saved the army by ferrying it across the East River during the following night; and Washington



FORT TICONDEROGA.
SITE OF THE COVERED WAY WHERE ETHAN ALLEN ENTERED.

fortified Harlem Heights, and beat off the enemy, until their flanking tactics compelled him to fall back into Westchester (where he fought a battle at White Plains), and afterwards into New Jersey. Soon afterwards, Fort Washington, near Harlem River, was stormed and captured by the British, with its garrison of 2,000 men. It had been held by the order of Congress, and against Washington's command to evacuate. Thenceforward for seven years the hostile army retained possession of the city, closely observed by American forces on the Hudson.

HUDSON HIGHLANDS : NORTHERN ENTRANCE.

In the summer of 1777 Sir John Burgoyne led an army of 9,000 Britons and Germans southward from Canada, to sever New England from the other colonies by winning and keeping the line of the Hudson. Fort Ticonderoga fell before his advance; but the brave Gen. Schuyler, with 4,500 Americans, retarded the grand triumphal march at every strategic point. Burgoyne formed an intrenched camp near Saratoga, and was beleaguered by Gen. Gates and 10,000 New-York and New-England troops, who won two decisive victories over the invaders, and then compelled them to surrender, 3,387 Britons, 2,412 Germans, six members of Parliament, and several nobles, with 42 guns, and a great quantity of military stores. The British loss in the campaign exceeded 10,000 men. The army remained in captivity until the end of the war, first in Massachusetts, and then in Virginia. Meantime, Sir Henry Clinton, advancing northward from New York to meet Burgoyne, stormed the forts at the Highlands, and near West Point, and burned Kingston. In 1779, he moved up the river again, with Admiral Sir George Collier's fleet, and fortified Stony Point, which was carried by storm soon afterward by Anthony Wayne, who assured Washington: "I'll storm hell if you'll plan it."

COLD SPRING, ON THE HUDSON RIVER.

As a corollary to Burgoyne's march, Col. St. Leger and the Royal Greens, and swarms of Indians, besieged Fort Stanwix (now Rome), and ambuscaded Herkimer's 800 Dutch militia, at Oriskany. The siege was raised by Benedict Arnold and 800 Massachusetts troops, who drove the enemy back to Lake Ontario in a disgraceful rout. The Mohawks and Tories filled the Schoharie Valley and the Otsego country with devastation and rapine, and perpetrated horrible massacres at Cherry Valley and the Valley of Wyoming, and the Minisink. Finally, Gens. Sullivan and Clinton led 5,000 Continentals into the Indian domain, and swept the Seneca-Lake country and the Genesee Valley with sword and torch. The enemy retaliated by destroying Canajoharie, Fort Plain, Caughnawaga, Stone Arabia, and Ballston, and laid waste broad areas of the Mohawk Valley, with pitiless fury.

As the great war drew to a close, 10,000 Continentals lay in camp at Newburgh, where Washington nobly spurned a proposal to make him King of America. The army was disbanded in June, 1783. November 25th, Sir Henry Clinton evacuated New York, and Washington occupied the city with his victorious troops.

CATSKILL MTS. : CATSKILL-MOUNTAIN HOUSE.

Massachusetts and Connecticut laid claim to the greater part of Western New York, by virtue of their original royal charters, which granted them jurisdiction westward to the Pacific Ocean. The Connecticut claim was summarily rejected; but by the Hartford Conven-

BULWAGGA BAY: LAKE CHAMPLAIN.

tion of 1786, New York received from Massachusetts the "government, sovereignty and jurisdiction" over 6,000,000 acres, and gave to Massachusetts and her grantees the right of pre-emption therein, and "all other estate, right, title and property." The Tuscaroras, Oneidas, Onondagas, Cayugas and Senecas sold or ceded nearly all their domains between 1785 and 1797. After 1788, the vast wilderness of central and western New York was rapidly settled by New-Englanders. The land-office sold 5,542,173 acres for $1,030,433. At this time New York had fewer inhabitants than Virginia, Massachusetts, Pennsylvania, or North Carolina; and it was not until 1820 that it passed Virginia in population. The Continental Congress established the capital of the Republic at New York, 1784–90; and there, in 1789, President Washington was inaugurated, on the balcony of Federal Hall, in the presence of Adams, Knox, Jay, Livingston, and thousands of citizens.

During the next half century the statesmen and lawyers of New York, conspicuous in ability and ripe in attainments, had a great share in forming the future of the Republic. Although the New-York delegates in Congress did not vote for the declaration of war in 1812, much of the brunt of that two years of fighting fell on the Empire State. Sackett's Harbor and Ogdensburg repulsed the invaders, but Buffalo was burned by the Royal Scots, all but four houses. The New-York militia suffered defeat at Queenston, with a loss of 1,100 men; but 1,700 Americans captured York (Toronto), after a hot bombardment; and another force stormed Fort George, on the Niagara River. Some of the heaviest fighting of the war occurred on the Niagara frontier, in the summer of 1813, when Gens. Scott and Ripley captured Fort Erie, opposite Buffalo, and soon afterward defeated Riall at Chippewa, and won a desperate battle at Lundy's Lane, over 800 men being lost on either side. Fort Erie repulsed several assaults by the British, and was then blown up by the garrison, and Izard's American army went into winter quarters at Buffalo and Batavia. Plattsburg was attacked in September, 1814, by Sir George Prevost and 14,000 soldiers, mostly veterans of Wellington's army, who for two hours endeavored to storm the town, occupied by Macomb's 3,000 United-States regulars and an equal number of New-York and Vermont militia under Gen. Mooers. The invaders were driven back to Canada, with a loss of 2,500 men and nearly all their stores. At the same time Commodore Downie's fleet attacked MacDonough's American squadron, on Lake Champlain, off Plattsburg, and was forced to surrender, after a spirited naval battle, in which 30 vessels were engaged. Early in 1813 Sir James Yeo, with a British fleet and 3,000 men, captured Oswego and destroyed the fort. The mastery of Lake Ontario was disputed with him by Commodore Chauncey, until Yeo launched a 100-gun man-of-war at Kingston.

NEW YORK: THE TOMBS.

NEW YORK: THE BELVEDERE, CENTRAL PARK.

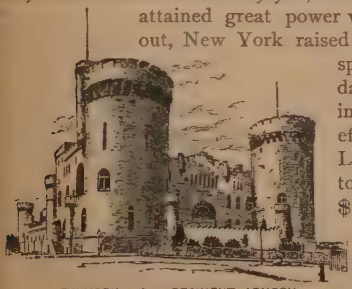
After the completion of the Erie Canal, the great cities of the Northern Tier sprang into being with marvellous rapidity. Buffalo, destroyed by the British in 1813, had over 12,000 inhabitants in 1830; and Rochester arose from a homeless wilderness in 1810 to 11,000 inhabitants in 1830. In 1826 Wm. Morgan disappeared; and Thurlow Weed founded the *Anti-Masonic* newspaper. New York was the first State to abolish imprisonment for debt, in 1831. In 1832 the Whig party was founded by James Watson Webb.

During the Canadian Rebellion of 1837, 700 New-York volunteers occupied Navy Island, in the Niagara River, with 20 cannon; and armed Canadian Royalists seized their steamboat, the *Caroline*, and sent her in flames over Niagara Falls. Other insurgents kept up a predatory warfare among the Thousand Islands, until President Van Buren and Gov. Marcy issued proclamations against the rebels, and Gen. Scott was ordered to northern New York to enforce neutrality.

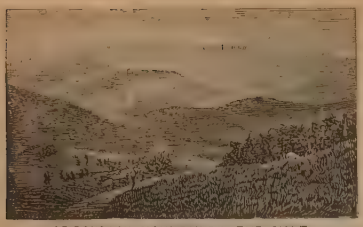
NEW YORK: 22D REGIMENT ARMORY.

In 1839 thousands of farmers formed themselves into anti-rent associations, to break up the onerous remnants of the feudal patroon system, and these secret bands perpetrated so many illegal acts, that Gov. Silas Wright declared Delaware County to be in a state of insurrection. The militia and sheriffs' posses suffered check for a time by the rural levies, and several persons were slain. After these disturbing forces had been put down, the land tenures were simplified by law, and the tenantry secured their rights. The large estates have been replaced by a multitude of small proprietors, and the farms now average less than 100 acres each.

Although New York was bound to the South by closer commercial and social ties than any other Northern State enjoyed, the Republican party, led by Seward, Weed, and Greeley, attained great power within its borders. When the late civil war broke out, New York raised 30,000 men at the earliest call, sending at first ten splendid regiments of militia to meet the imminent danger. The United-States Sanitary Commission came into being in New-York City in 1861, largely by the efforts of Dr. Bellows, Valentine Mott, and Frederick Law Olmsted, and received and wisely distributed to the National armies supplies to the value of $20,000,000. In the same great city arose the United-States Christian Commission, under the efforts of Vincent Collyer and George H. Stuart, and distributed to the armies food, stores, delicacies and clothing to the amount of $6,000,000. The Union Defence Committee of New York, by its large contributions and energetic measures, also aided greatly the work of reunion. By the close of 1862 the State had sent into the tented field 219,000 soldiers, and had given or loaned to the Government $300,000,000. But in July, 1863, the city of New York was seized by vast mobs (largely of aliens), who plundered and burnt extensive districts, and murdered many soldiers and negroes. The valor of the police and citizens availed little against this colossal riot, and the National Government was compelled to send 44 regiments and batteries against the insurgents. One thousand persons were killed and wounded during this amazing outbreak, and millions of dollars' worth of property was destroyed. During the war, New York furnished 490,000 soldiers, of whom 116,382 went from the metropolis alone. She paid out $87,000,000 for bounties; and individual gifts and benefactions reached vast sums. Weakened by such terrible drains of men, the State showed a loss of 49,000 inhabitants between 1860 and 1865. Her levies for the National armies included 194 regiments of infantry, 26 of cavalry, 17 of artillery,


NEW YORK: 8TH REGIMENT ARMORY.

NEWBURGH: WASHINGTON'S HEADQUARTERS AND MONUMENT.



ADIRONDACK MOUNTAINS: THE GIANT OF THE VALLEY.

and 35 batteries, besides engineers, sharp-shooters, a rocket battalion, and the militia. During the war New York furnished 20 major-generals (and 65 by brevet), and 97 brigadiers (and 220 by brevet). One hundred and fifteen New-Yorkers received the United-States medal of honor for bravery.

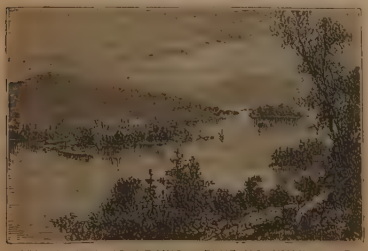
June 1, 1866, 1,200 Fenians crossed the Niagara River, seized Fort Erie, and advanced into Canada, where they fought a stubborn battle with the Toronto militia, at Ridgeway. The Irish invaders held the field, but retired during the night, and returned to the American shore.

Among the historic edifices still standing are Johnson Hall, built at Johnstown by Sir William Johnson, in 1763; the manor-houses of the Van Rensselaers, Schuylers, Phillipses, Beekmans, Van Cortlandts, De Peysters, Livingstons, Morrises, Jays, and other great families; the Senate House, at Kingston, recently restored with pious care; the Billopp House, on Staten Island; Washington's headquarters (1782 3), at Newburgh, built in 1750, and now sacredly preserved; the old Dutch church of Sleepy Hollow, built by Vedryck Flypsen in 1699; the Dutch and English churches at Fishkill; the shattered walls and barracks of Fort Ticonderoga; the fortress of Crown Point, built by the British Government about 1759, at a cost of over $10,000,000, and still fairly preserved; the ancient churches and ruined defenses of the Mohawk Valley; and many other venerable houses in the Hudson Valley and on Long Island. Imposing monuments have been erected on the battle-fields of Saratoga, Oriskany, and Cherry Valley, and elsewhere.

KAUTERSKILL FALLS.

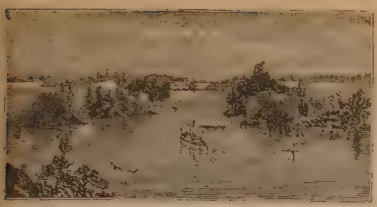
The name of New York is derived from the circumstance that in 1664 King Charles II. of England granted the territory "from the west side of the Connecticut River to the east side of Delaware Bay," to his brother, the Duke of York (afterwards King James II.); and when the Duke's naval expedition captured New Amsterdam, that town was named in his honor, NEW YORK. The same name was applied to the Province. "By a strange caprice of history, the greatest State in the Union bears the name of the last and the most tyrannical of the Stuarts." The popular name of THE EMPIRE STATE indicates the commanding position of New York among the American commonwealths.

The Arms of New York are as follows: A broad shield, on which is pictured a placid stream, the Hudson, with vessels approaching each other, and in the background the Highlands, over which the resplendent sun is rising. The crest is an heraldic eagle, perched on a globe, showing parts of America and Europe On one side of the shield stands the robed figure of Liberty, with a shield in one hand, and in the other an upright staff surmounted by a liberty cap, and with her foot on an overturned crown. On the other side stands the robed figure of Justice, blindfolded and vigilant, with an even balance in one hand and an upward-pointing sword in the other. The motto is EXCELSIOR. This seal was devised in 1778 by Lewis Morris, John Jay, and John Sloss Hobart, and has appeared on the blue regimental flags of the New-York troops ever since.



ADIRONDACK MOUNTAINS; BLUE-MOUNTAIN LAKE.

The Governors of New York have been: *Dutch:* Cornelius Jacobsen May, 1624; William



THE THOUSAND ISLANDS, NEAR ALEXANDRIA BAY.

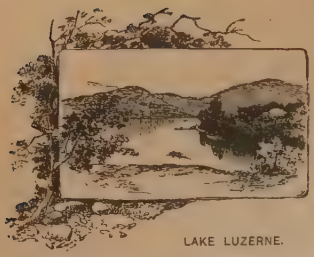
Verhulst, 1625; Peter Minuit, 1626–33; Wouter Van Twiller, 1633–8; William Kieft, 1638–47; Peter Stuyvesant, 1647–64. *British:* Richard Nicolls, 1664–8; Francis Lovelace, 1668–74; Sir Edmond Andros, 1674–82; Thomas Dongan, 1682–7; Francis Nicholson, 1687–90; Jacob Leïsler, 1690–1; Henry Sloughter, 1691; Joseph Dudley, 1692. 30 Provincial governors ruled between 1692 and 1777. *State:* George Clinton, 1777–95; John Jay, 1795–1801; George Clinton, 1801–4; Morgan Lewis, 1804–7; Daniel D. Tompkins, 1807–16; John Taylor (acting), 1816–17; De Witt Clinton, 1817–23; Joseph C. Yates, 1823–5; De Witt Clinton, 1825–8; Nathaniel Pitcher, 1828–9; Martin Van Buren, 1829; Enos T. Throop (acting), 1829–31; Enos T. Throop, 1831–3; William L. Marcy, 1833–9; William H. Seward, 1839–43; William C. Bouck, 1843–5; Silas Wright, 1845–7; John Young, 1847–9; Hamilton Fish, 1849–51; Washington Hunt, 1851–3; Horatio Seymour, 1853–5; Myron H. Clark, 1855–7; John A. King, 1857–9; Edwin D. Morgan, 1859–63; Horatio Seymour, 1863–5; Reuben E. Fenton, 1865–9; John T. Hoffman, 1869–73; John Adams Dix, 1873–5; Samuel Jones Tilden, 1875–7; Lucius Robinson, 1877–80; Alonzo B. Cornell, 1880–3; Grover Cleveland, 1883–5; David Bennett Hill (acting), 1885; D. B. Hill, 1885–91; and Roswell P. Flower, 1892–4.

OTSEGO LAKE.

Descriptive.— New York is nearly as large as England, and a little larger than Louisiana, and includes $\frac{1}{63}$ of the American land. It is the 19th State in size, being smaller than Alabama, Colorado, Florida, Georgia, Illinois, and others. Some imaginative writers fancy that they can see a triangular outline to the State. It is 326½ miles east and west, and 300 miles north and south, excluding the islands. Forty-seven thousand six hundred and twenty square miles of its area is land, and 1,550 in Lakes Ontario and Erie. The land rises gradually from the Great Lakes, and attains mountainous altitudes all along the eastern and southern borders, affording many episodes of beautiful scenery. Foremost among these highlands come the Adirondacks, a cluster of wilderness peaks, toward Lake Champlain, surrounded by the far-outspread North Woods, and diversified with many a bright lake and silvery river. A troop of broad and irregular hills enters from Pennsylvania, broken by deep ravines, and by the rich Mohawk Valley, and then rising to the great Adirondack group of mountains, wild and rugged, and formed of igneous rocks, rich in mineral deposits. Among the most interesting scenes here are the Hunter's Pass, Indian Pass, Wilmington Notch, Keene Valley, and the wild Ausable Ponds, under Mt. Marcy. Farther north are the wonderful gorges of the Au-Sable and Chateaugay Chasms.

GENESEE RIVER: PORTAGE FALLS AND BRIDGE.

The loftiest peaks in the Adirondack wilderness are: Mt. Marcy, 5,344 feet; Mt. McIntyre, 5,113; Clinton, 4,937; Haystack, 4,918; Dix Peak, 4,916; Basin Mountain, 4,905; Gray Peak, 4,902; Skylight, 4,890; Whiteface, 4,871; Colden, 4,753; Gothic Mountain, 4,744; Redfield, 4,688; Santanoni, 4,644; and the Giant of the Valley, 4,530. Among the other ranges in this lofty wilderness are the Palmertown Mountains, running east of Lake George,


LAKE LUZERNE.

from Greenfield to Mt. Defiance, opposite Fort Ticonderoga; the Kayaderosseras Mountains, 60 by seven miles, between Schroon Lake and Lake George, and ending at Bulwagga Bay, on Lake Champlain, with Mt. Pharaoh as the chief peak; the Bouquet Range, bordering Bouquet-River Valley, and culminating in Dix Peak; the Clinton Range, including the chief Adirondack summits, and ending at Trembleau Point, on Lake Champlain; the Au-Sable Range, 160 miles long, ending on the north near Peru; the Chateaugay Range, mainly in Hamilton and Franklin Counties, and melting away into the lowlands of Canada; the St.-Lawrence Range, bordering the great northern valley; and other semi-detached groups.

The Catskill Mountains cover 500 square miles, between the Hudson and the Susquehanna, with steep and rocky acclivities, and crests of old red sandstone and conglomerate. Among the chief peaks are Slide Mountain, 4,220 feet; Hunter Mountain, 4,052; Black Dome, 4,004; Mt. Cornell, 3,920; Peekamoose, 3,875; Plateau Mountain, 3,855; and Wittenberg, 3,824. This range was called *Onti-ora*, or Mountains of the Sky, by the Indians, and the *Katzbergs*, by the Dutch, for the many catamounts therein dwelling. Amid their beautiful glens Irving laid the scenes of his *Rip Van Winkle* legend, and Thomas Cole painted many of his famous pictures. Three dependent ranges diverge from the Catskills: the Helderbergs, running northward, parallel with the Hudson; the Shawangunk Mountains, a high and commanding ridge, running southwest from the Hudson near Esopus, to the Delaware, at Port Jervis, and from 1,500 to 2,000 feet high; and the Delaware Mountains, uniting the Catskills to the Pennsylvanian Alleghanies. Howe's Cave is in the Helderberg Mountains, and runs for three miles underground, with many weird halls and passages, flowing streams and dark pools, and myriads of stalactites and stalagmites. The Blue Ridge reaches the Hudson under the name of the Highlands, about 1,700 feet high; and after giving passage to the river between its mighty bulwarks, it is extended into the Taconics of Massachusetts. The outlines of this range are rugged and precipitous, of primary rock, with thin and valueless soil.

SCHROON LAKE.

The New-York coast-line of Lake Ontario extends for a distance of 200 miles, and that of Lake Erie, for 75 miles; and the two are joined by the Niagara River. Lake Champlain flows along the eastern frontier for 134 miles, and receives the waters of Lake George, one of the loveliest sheets of water in the world. This "Como of America," stretches its deep and crystalline tides for 36 miles among the frowning Kayaderosseras and Luzerne Mountains, with hundreds of islands, sequestered coves, mountain shores, and far-projecting points. It was called by the French discoverers, *Le Lac du St. Sacrement;* and over a century of border forays and battling armies made its shores historic. Otsego Lake, nine by 1½ miles, and hallowed by the genius of Cooper, lies between long ranges of green highlands, with Cooperstown at one end and Richfield Springs seven miles from the other end. Near the center of New York a group of long and narrow lakes occupies ancient valleys blocked by moraines,

IN THE LAKE OF A THOUSAND ISLANDS.

and pointing generally north and south. Most of them empty into Lake Ontario, through the Oswego River. They are navigated by steamboats, and have on their shores many pleasant villages and summer-resorts. Oneida Lake, 19 by six miles, spreads its broad blue shield in a lowland country, rich in dairies and blooded cattle. Farther southwest is Skaneateles Lake, sixteen miles long, 860 feet above the sea, bordered by high blue hills, and not far from the romantic Otisco Lake (four miles long). Owasco Lake, eleven miles long, is near Auburn. Cayuga Lake, 38 miles long, runs from Ithaca to Cayuga, in a rich farming country. Seneca Lake, 35 by four miles, lies between the beautiful scenery of Watkins Glen and the town of Geneva, the seat of Hobart College. Its deep, clear waters rarely freeze over. Canandaigua Lake (16 miles long) and Keuka Lake (22 miles long) lie in a picturesque hill-country, famous for its great vineyards and wine-cellars. In southwestern New York is Chautauqua Lake, 18 by three miles, and 1,400 feet above the sea, and world-renowned for the popular educational movement bearing its name. The Adirondack country abounds in beautiful lakes, Placid, Raquette, Blue-Mountain, Tupper, St. Regis, Saranac, Schroon, Luzerne and many others, famous as summer-resorts. There are 200 lakes in this northern region, Avalanche Lake being 2,900 feet high; Colden Lake, 2,750; Blue-Mountain Lake, 1,800; and Upper Au-Sable Pond, 1,993. Nearer New-York City are Lake Mahopac (seven miles around) and Greenwood Lake (ten miles long), each of which has great summer-hotels. Lake Mohonk, high up on the Shawangunks, and Lake Minnewaska are also much visited in summer.

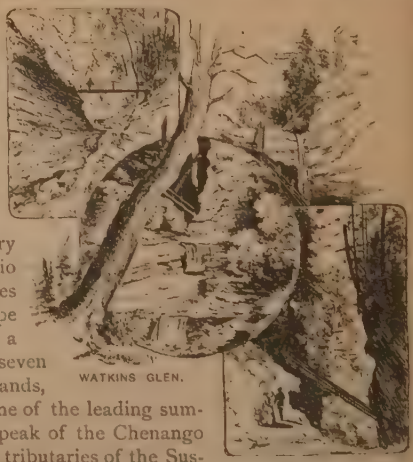
UPPER AU-SABLE POND.

AU-SABLE CHASM: SENTINEL ROCK.

The rivers fall naturally into two divisions, those flowing to the Great Lakes, including the short and rapid streams of the western counties: the Genesee, 145 miles long, with its lofty walls and great falls, and a valley rich in wheat; the Oswego, flowing from the midland lakes; the iron-tinted rivers that pour down from the Adirondack wilderness, and the torrents that rush into Lake Champlain; and those flowing south and east, like the limpid and broad-curving Allegany, navigable to Olean; the Susquehanna, issuing from Otsego Lake; the Delaware, born in Utsyanthia Lake; the Mohawk, pouring down its famous valley to the Hudson; and the majestic Hudson, rising far up in the Adirondacks, 300 miles from and 4,000 feet above the sea. The Hudson is the most interesting of the lesser American rivers, and immense steamboats traverse its 156 miles from New-York City to Albany and Troy daily. Among the points of interest are the Palisades, a basaltic wall, 20 miles long and 1,500 feet high, running north from Fort Lee, along the Jersey shore; Tappan Zee, a lake-like widening of the river, ten by three miles, on which lie the ancient towns of Dobbs Ferry and Irvington, Tarrytown and Piermont, Nyack and Sing Sing, in a region made classic by the pen of Washington Irving; Haverstraw and Peekskill, venerable Dutch towns; the historic headlands of Stony Point and Verplanck's Point; the magnificent passage of the Highlands, beginning between the Dunderberg and Anthony's Nose, and extending north to Storm King (1,529 feet high), beyond the world-renowned military school at West Point; Cornwall, the chief summer-resort of

AU-SABLE CHASM: RAINBOW FALLS.

the Hudson country; the quaint old city of Newburgh, opposite Fishkill, the scene of Cooper's novel, *The Spy*; Poughkeepsie, with its bold heights crowned by famous schools; Rondout and Kingston, abounding in coal; the grand Catskill Mountains, massed on the west of the valley; and many another interesting locality, with hundreds of beautiful country-seats of the ancient patrician families, and the modern men of wealth. In the six miles between Dobbs Ferry and Tarrytown are the country-houses of 63 millionaires, whose united fortunes are said to exceed $500,000,000.


WATKINS GLEN.

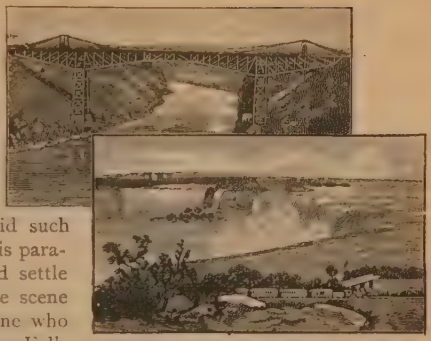
The magnificent St.-Lawrence River, the outflow of the Great Lakes, which pours into the sea more water than any river in the world, except the Amazon, forms the northern boundary of New York for 100 miles, from Lake Ontario to the Indian village of St. Regis, where it passes into Canada. After leaving Lake Ontario, at Cape Vincent, the river traverses the lovely Lake of a Thousand Islands, 40 miles long and in places seven miles wide, containing 1,800 islets and islands, famous in border history, and for many years one of the leading summer-resorts of America. Nor may we fail to speak of the Chenango and the Chemung, 75 miles and 40 miles long, tributaries of the Susquehanna, and the former navigable for 50 miles. Black River flows from the Adirondacks to Lake Ontario, 108 miles, with several falls. The Oswegatchie (125 miles), Raquette, St.-Regis, Grass and other wilderness streams mingle their waters with the St.-Lawrence. In its 36 miles from Lake Erie to Lake Ontario the Niagara River falls 336 feet, 52 feet being in the rapids above the Falls. At Buffalo it is three quarters of a mile wide, and from 40 to 60 feet deep, with a current of four miles an hour. The marvellous Niagara Falls, one of the wonders of the world, occur at a point where the river is 4,750 feet wide. The curving Horse-shoe Fall, half of which is within the Canadian boundary, is 154 feet high and 2,000 feet wide; the American Fall is 163 feet high and 1,100 feet wide; and over these huge cliffs 100,000,000 tons of water thunder every hour.

The wooded Goat Island, half a mile long, and reached by a bridge from the American shore, separates the two falls, with huge precipices descending sheer from their brink to the river below. On either side, and for two miles above, extend the great rapids, "a battle charge of tempestuous waves." The American Fall is divided by the little Luna Island, and the part between Luna and Goat is sometimes called the Central Fall, between whose blue waters and the cliff behind is the Cave of the Winds, often visited by adventurous tourists. A steamboat plies on the river just below the Falls, running up into their spray. Nearly a league below, beyond the white and terrible Whirlpool Rapids, is the Whirlpool.

POUGHKEEPSIE AND THE BRIDGE.

The New-York State Park at Niagara Falls includes 115 acres, extending for over a mile along the river, by the falls and rapids. It was purchased by the State in 1883-5, for $1,433,000, and made attractive and free of access.

The New York State Commissioners, in the sobriety of an official report, were impelled to say: "Niagara is not simply the crowning glory of the Empire State, it is the highest distinction of the Nation and of the Continent of America." Unfortunately, most visitors endeavor to see it in a few hours, and fall a prey to mercenary hackmen and shop-keepers, and so come away fleeced, and tired and confused. To avoid such mischances, and properly to comprehend this paramount marvel of Nature, the visitor should settle down here for a term of days, and study the scene in calmness and leisure. It was Hawthorne who said that "Days should be spent at Niagara Falls in deep and happy seclusion." The International is the finest and largest hotel at Niagara, a great fire-proof stone structure built around three sides of an extensive lawn, which is adorned with flowers and ancient trees, and leads down to the American Rapids. The house fronts on Prospect Park; and from its magnificent colonnades and rooms gives noble views of the rapids and islets, the wooded heights of Goat Island, and the absolute brink and spray of the falls. The appointments of this famous hotel are of the best, and the rates are moderate. Many of the most celebrated people of the world, visiting Niagara, have sojourned at the International, and from its pleasant shelter have made their calm and profitable studies of the mighty cataract so near at hand, unfretted by the parasites who sometimes make misery and confusion for the single-day visitor.



NIAGARA FALLS: CANTILEVER BRIDGE. VIEW FROM FALLS-VIEW STATION, MICHIGAN CENTRAL R. R.

NIAGARA FALLS: INTERNATIONAL HOTEL.

During the winter, spring, and autumn the only large hotel which is open at Niagara Falls is the Spencer House, whose internal arrangements combine every advantage of quiet, comfort and convenience. It is only two minutes' walk from the shore of the river and the edge of the rapids, and fronts on the Central-Hudson railway station, which is, however, across a very broad avenue. The house is just far enough from the Falls to shield nervous guests from their occasional damp mist, and to deaden the roar of the falling waters. The Spencer has entertained many of the most famous persons of this century—the King of the Sandwich Islands and the Grand Duke Alexis of Russia, Booth and Barrett, Modjeska and Parepa-Rosa, Chauncey M. Depew, Wilkie Collins and Charles Dickens.

There are many other well-known waterfalls in this picturesque State, like the Genesee Falls, at Rochester, where the Genesee River plunges down 226 feet, with three powerful cascades, in a rocky cañon; Glens Falls, where the Hudson descends 50 feet, between black marble cliffs; the downward rush of the Mohawk at Cohoes, for 62 feet, between lofty rocky walls; the beautiful Trenton Falls, 18 miles north of Utica, where West Canada Creek makes five leaps (200 feet), in a romantic limestone ravine; the cascades near Ithaca, with Fall Creek descending 438 feet in a mile, over the Ithaca, Triphammer, Rocky and other falls;

NIAGARA FALLS: SPENCER HOUSE.

the magnificent Taughkannock Falls, ten miles from Ithaca, 210 feet high, narrow, massive, and white, in a great amphitheater of dark cliffs; the Portage Falls, on the upper Genesee, 328 feet in three cascades, in a profound and impressive gorge; Kauterskill, and others.

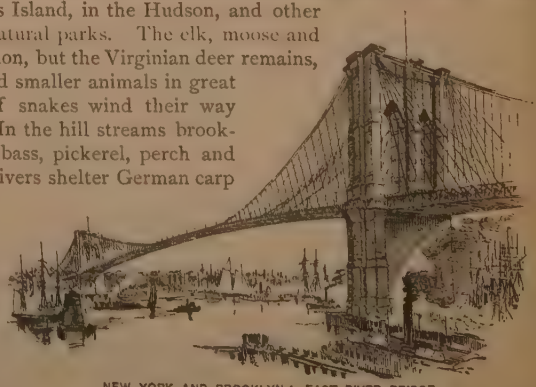
NEW YORK: WASHINGTON BRIDGE AND HIGH BRIDGE.

Long Island includes three counties, with 800,000 inhabitants, and is 140 miles long, having (according to Walt Whitman) the form of a fish. On the north is Long-Island Sound, "the American Mediterranean," separating it from Connecticut; and on the south lines of lagoons and sand-bars front the ocean. The long alluvial plains of the island are traversed by several railways, leading to Coney Island, Rockaway and other famous beaches, and out to the ancient ports of Sag Harbor and Greenport, near the eastern end. The western end, with Brooklyn and the adjacent communes, forms one side of New-York harbor.

Staten Island, southeast of New-York Bay, covers 58½ square miles, with its picturesque region of hills and plains, and quiet villages. Frequent ferry-boats ply to and from the metropolis. Here Curtis and Winter have dwelt for many years; and Theodore Winthrop wrote his memorable novels; and Thoreau, and Parkman, and Lowell, and Mackay, lived and labored. The Sailors' Snug Harbor overlooks the Kill Von Kull.

The Climate is a pleasant mean between the rigors of New England and the languors of the South, being tempered by the contiguous sea and lakes. It abounds in sharp and sudden changes, but is healthy and agreeable, and conduces to contentment and long life. The prolonged Adirondack winters and the deep and abiding snows of the lake-country give place in the great metropolis on the coast to milder seasons.

New York has 70 varieties of trees, including 15 of oaks; 54 kinds of ferns; and 1,540 of flowers. The policy of the State had been to get rid of its woodlands at any price. But in 1885 wiser council prevailed, and the Forest Commission began its work; and foresters, fire-wardens and game protectors now patrol the State's woods. The Forest Preserve includes over 850,000 acres, mainly in Hamilton, Essex, and Franklin Counties, in the Adirondack wilderness. The Catskill Deer-Parks were established in 1887. The islands of Lake George, Esopus Island, in the Hudson, and other public domains are reserved as natural parks. The elk, moose and caribou have suffered extermination, but the Virginian deer remains, and also bears, lynxes, foxes, and smaller animals in great numbers. Seventeen species of snakes wind their way through the woods and fields. In the hill streams brook-trout dwell; the lakes contain bass, pickerel, perch and land-locked salmon; and the rivers shelter German carp and salmon.



NEW YORK AND BROOKLYN: EAST-RIVER BRIDGE.

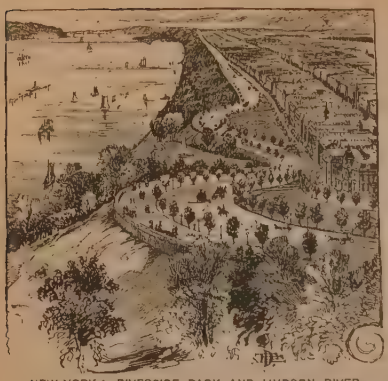
The Geology of New York is remarkably varied and comprehensive. The Adirondacks are thought by scientists to be the oldest parts of the earth's surface. The ocean beat for centuries along their bases, and left its beaches as memorials. Long afterwards, the Alleghany Mountains were upheaved; the glaciers planed away vast areas, and dug out the lake-valleys and Long-Island Sound; and amazing changes occurred to the rivers. There are 250 quarries in New York, with a valuable yearly product. They include the roofing slate of Washington, Rensselaer and Columbia; the granite of the Adirondack

region; the sandstone of Potsdam and Medina; the bluestone (for paving) of Kingston and the Hudson Valley; the shell-limestone of Lockport; the black marble of Glens Falls; the red marble of Warwick; the verd-antique of Moriah; the white marble of Westchester; the gypsum of Syracuse; and the hydraulic cement of Rondout, Manlius and Akron. The most valuable mineral product is iron ore, of which 1,250,000 tons are mined yearly. Graphite is found near Ticonderoga. The finest fibrous talc comes from Gouverneur, St. Lawrence County. Petroleum and natural gas abound in the State. Near Syracuse are the great Salt Springs, which have produced 400,000,000 bushels of salt.

The mineral springs of New York have been for many years favorite summer-resorts, and are provided with great hotels and pavilions. Foremost stands Saratoga Springs, about 180 miles north of New-York City, with saline, chalybeate, and other medicinal waters, amid pleasant parks, and near the beautiful Saratoga Lake, and Mt. McGregor (where Gen. Grant died). The 17 sulphur springs of Richfield rise amid the rich dairy-lands of Otsego, close to Canadarago Lake and have latterly become very fashionable. Sharon Springs (iron, sulphur and magnesia) have been called "the Baden-Baden of America," and flow in a narrow upland valley of Schoharie. Among other resorts of this character are the Acid Springs, six miles south of Medina; Avon, with saline-sulphurous waters, in the Genesee Valley; Ballston, near Saratoga, a famous resort 80 years ago; Chappaqua, in Westchester; Cherry Valley, resembling the sulphur-waters of Teplitz; Chittenango, a group of sulphur-springs, near Cazenovia Lake; Clifton, near Canandaigua; Columbia, in the Claverack Valley; Crystal, between Seneca Lake and Keuka Lake; Deep-Rock, at Oswego; Guymard, in the Delaware Valley; Lebanon, an ancient thermal spa, amid the hills of the Massachusetts border; Massena, a strong sulphur water near the Raquette River, in the far north; Spencer, near the Cayuga Valley; Vallonia, among the Chenango hills; and Verona, near Rome, and resembling the Harrowgate Springs.

THE GENESEE FALLS AND CITY OF ROCHESTER.

The Population of New-York State exceeds that of 22 important nations of the earth, including the Argentine Republic, Bolivia, Canada, Chili, Columbia, Egypt, Peru, Portugal, Sweden and Norway. It is exceeded by only 14. As late as the year 1750, England had no more inhabitants. New York includes in its variegated population 500,000 Irishmen, 375,000 Germans, 150,000 Britons, 85,000 Canadians, 20,000 Frenchmen, 15,000 each of Italians and Scandinavians, 12,000 Poles, and divers Azoreans, Australians, Greeks, Greenlanders, Hindoos, Japanese, Maltese, Mexicans, Russians and Turks, with 57 natives of Gibraltar. Of the entire population, 55,000 were born in Pennsylvania, 45,000 in New Jersey, 42,000 in Massachusetts, 38,000 in Connecticut, 31,000 in Vermont, 11,000 in Ohio, 7,000 each in New Hampshire, Michigan and Maine; 6,000 each in Rhode Island and Illinois; and 5,000 each in Maryland and Virginia. There are 230,000



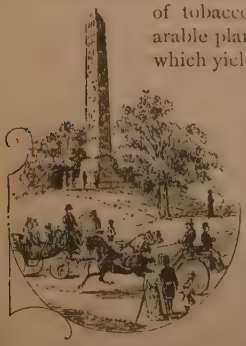
NEW YORK: RIVERSIDE PARK AND HUDSON RIVER.

natives of New York in Michigan, 120,000 in Illinois, 100,000 in Pennsylvania, 94,000 in New Jersey, 87,000 in Wisconsin, 83,000 in Iowa, 64,000 in Ohio, and 37,000 in Massachusetts.

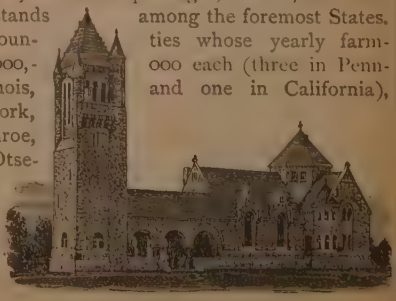
The Empire State has been always cosmopolitan in its make-up. Livingston was of Scottish origin; Herkimer, German Palatinate; John Jay, Huguenot; Hamilton, West-Indian; Clinton, Irish; Schuyler, Dutch; and Lewis, Welsh. For many years the Welsh towns of Oneida, the Huguenots of Westchester, the Scotch-Irish of Otsego, the Palatines of the Mohawk Valley, the Vermonters and French-Canadians of the northern counties, and the Connecticut and Massachusetts colonies in the center and west, preserved their individual traits.

Farming.—The central and eastern parts of New York are among the richest and most delightful farming countries in the world, abounding in comfort and prosperity. Half the population dwells in the cities, but still this is the third American State in agricultural importance. Although it has fewer farmers than Alabama, Georgia, Illinois, or Ohio, it is second only to Illinois in the value of its agricultural products, whose average yearly yield is $178,000,000. It is the foremost hay-making State, and produces one seventh of the entire American crop (5,000,000 tons a year, valued at $61,000,000). It leads all its sister States in raising potatoes, with 30,000,000 bushels a year, or one eighth of the Nation's growth. The rich orchards of its valleys produce one sixth of the fruit of the United States, and nearly double the amount of its nearest competitor (Pennsylvania). One seventh of the butter and one third of the cheese are made here. Among other yearly products of the soil of New York are 36,000,000 bushels of oats, 20,000,000 of corn, 9,000,000 of wheat, 7,500,000 of barley, 3,000,000 of rye, and 6,500,000 pounds of tobacco. Three fourths of the hops of America are grown on these arable plains. One third of the American buckwheat comes from her farms, which yield over 300,000 bushels a year. In maple-sugar, lumber, and other forest-products she stands among the foremost States. Of the 14 American counties whose yearly farm-products exceed $5,000,000 each (three in Pennsylvania, two in Illinois, and one in California), eight were in New York, Erie, Jefferson, Monroe, Oneida, Onondaga, Otsego, St. Lawrence and Steuben. The broom-corn of the Mohawk Valley, and the peppermint of Lyons are famous.

THE HUDSON RIVER: MOUNT ST.-VINCENT AND FONT HILL.

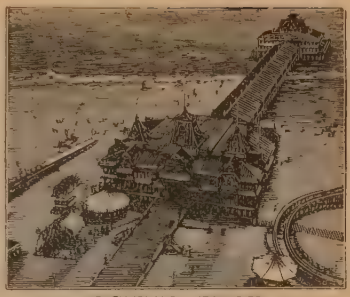


NEW YORK: THE OBELISK, CENTRAL PARK.



TROY: THE EARL CREMATORY.

Government.—The governor and lieutenant-governor are elected for three years (since 1879); and on alternate years the people choose their comptroller, treasurer, attorney-general, secretary of State, and State engineer and surveyor. The judiciary includes the Court of Appeals, with seven judges, and the Supreme Court, of eight districts.



CONEY ISLAND: IRON PIER.

The Capitol was begun in 1867, on the noble heights above Albany, and has cost nearly $20,000,000, remaining still in an unfinished condition. It is built of granite, in free Renaissance architecture, and covers nearly four acres, with a central court of 137 by 92 feet. The walls are 108 feet high, and form a landmark for leagues along the populous Hudson Valley. The State library of 125,000 volumes, the 804 flags of the volunteers, and the magnificent court and legislative halls are the Capitol's treasures.

The National Guard includes 15 regiments, one battalion and 44 separate companies of infantry, and five batteries, forming four brigades, with armories at Olean, Albany, Auburn, Binghamton, Brooklyn, Buffalo, Elmira, Flushing, Hoosick Falls, Kingston, Mount Vernon, Newburgh, New York, Oneonto, Oswego, Rochester, Saratoga, Syracuse, Troy, Utica, Walton, and Watertown. The armories of some of the city regiments, like the 7th and 12th of New-York City, are imposing and extensive structures, adapted for defence. The State spends $500,000 yearly in the maintenance of its disciplined militia. The State Camp of Instruction was established at Peekskill, in 1882, as a military post, where the armory-drilled militia are exercised in the open, in company and battalion drill, skirmish and outpost, picket and field duty, and minor and grand tactics. The regiments spend several days in camp here every summer, under strict military discipline. Rifle-ranges on Long Island are devoted to practice by the National Guard, with military rifles, and have resulted in great proficiency in marksmanship. A new rifle-range and a parade-ground were established in Van-Cortlandt Park in 1889.

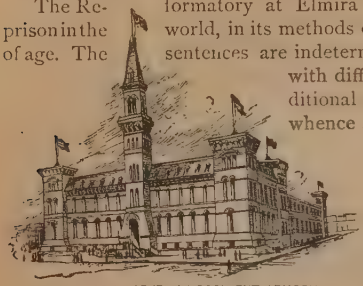
Charities and Corrections.—The State Board of Charities has charge of three groups, the State institutions, those of the counties and cities, and those of benevolent societies. Fully 64,000 persons are maintained in these places, at a yearly cost of $13,000,000—$1,500,000 of which comes from the State, $1,800,000 from the counties, $3,300,000 from the cities, and $1,600,000 from gifts. The property held for these uses exceeds $54,000,000 in appraised value—$36,000,000 belonging to benevolent associations, $11,000,000 to the State, $4,000,000 to the cities, and $3,000,000 to the counties.

The State prisons are at Sing Sing, on the Hudson, with 1,400 convicts; Auburn, in central New York, 1,250 convicts; and Dannemora (750 convicts), 1,700 feet above the sea, near the Adirondack Mountains. The counties, prohibited by law from employing their prisoners at useful labor in their penitentiaries, send them to the State institutions, crowding the latter to their utmost capacity. For a number of years the prisons had been more than self-sustaining, the labor of the convicts being contracted for at 40 cents a day. But in 1886 this system was abolished, at the demand of labor agitators, and in 1888 the Legislature forbade the use of machinery, and directed that the output of the prisons should be used only in the State institutions. These

CONEY ISLAND: BIRD'S-EYE VIEW.

changes resulted in the unhappy idleness of thousands of convicts withdrawn from the shops to their cells, and the prisons receded in their condition and tendency.

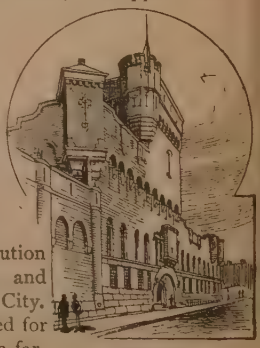
The Reformatory at Elmira was founded in 1876, and is the most interesting prison in the world, in its methods of dealing with first-offence criminals under 30 years of age. The sentences are indeterminate, and the convicts, divided into three classes, with differing uniforms, receive industrial training and conditional discharges. They all first enter the second grade, whence six months of good conduct raises them to the first grade, six months more secures release on parole, and a final six months results in absolute freedom. As fast as the prisoners advance in these grades, their privileges increase, and their fare improves. Evil behavior reduces a prisoner to the third grade; and incorrigible wickedness secures his transfer to the State Prison, to serve out a maximum sentence. Eighty-two per cent. of the men discharged from Elmira become reputable and self-supporting citizens. The system is being adopted in several other States; and appears to furnish one of the most fortunate solutions to a heart-breaking problem of modern society.



NEW YORK: SEVENTH REGIMENT ARMORY.

The State Industrial School at Rochester, and the House of Refuge, on Randall's Island, near New-York City, are now about 40 years old, and hold nearly 2,000 youths. The first-named has become a school of technology, whose inmates are taught carpentering, blacksmithing, painting and other useful avocations.

There are large institutions for the instruction of deaf mutes at New York, Fordham, Rome, Rochester, Buffalo, and Malone, in which 1,500 pupils are supported by the State. The Institution for the Blind, founded at Batavia in 1867, has 120 inmates; and there are large establishments for the same class in New-York City. Another group of unfortunates, the confirmed inebriates, are cared for in great stone buildings, in Tudor castellated architecture, on a far-viewing hill north of Binghamton.



NEW YORK: 12TH REGIMENT ARMORY.

About 16,000 insane persons are treated in 15 corporate institutions, and in the State Asylums at Utica (700 patients), opened in 1843; Willard (2,000), opened in 1869; Poughkeepsie (700), opened in 1871; Buffalo (400), opened in 1880; Binghamton (1,100), opened in 1881, and Ogdensburg (1,200), opened in 1891. At Middletown is the Homœpathic Asylum for the Insane, with 600 patients. The State Asylum for Idiots (500) was founded at Syracuse, in 1851; and the Custodial Asylum for Feeble-Minded Women (250), at Newark, in 1885. The Asylum for Insane Criminals (175) is at Auburn. New-York City has 5,000 insane in her municipal asylums; and Brooklyn has 2,000.

NEW YORK: MOUNT-SINAI HOSPITAL.

The State Board of Health, formed in 1880, is constantly improving the drainage and sewerage and water-supplies of the towns; watching and checking epidemics; prosecuting adulterators of food and drugs; and tabulating vital statistics.

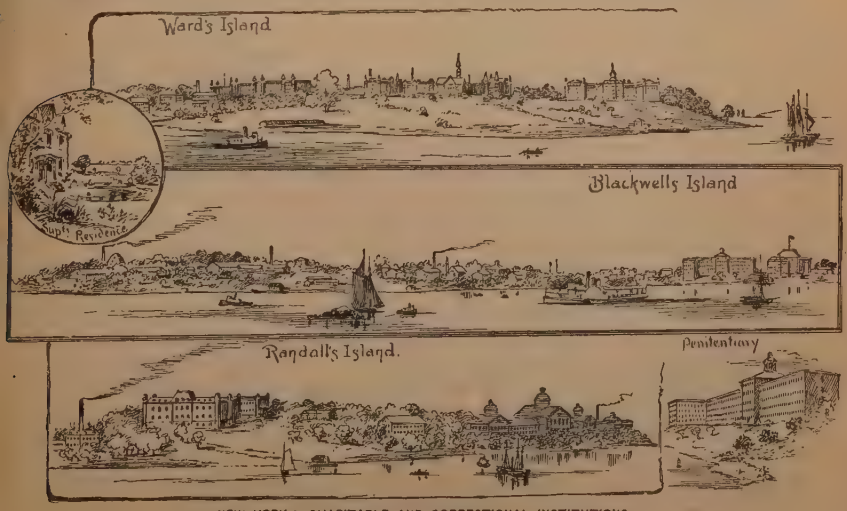
Education. The Board of Regents of the University attends to the incorporating and inspection of colleges and academies, and the government of the State Library and Museum. The normal schools at Albany, Brockport, Buffalo, Cortland, Fredonia, Geneseo, New Paltz, Oneonta, Oswego, and Potsdam, cost $1,400,000, and have 6,000 pupils. But in 1880, 166,625 New-Yorkers could not read; and 219,600 could not write. A third of the children of school age are in daily attendance (637,000 out of 1,773,000). There are 30 Indian schools, with 1,100 enrolled students, on the seven reservations. The colleges and professional schools own property valued at $24,000,000. There are 18 colleges for men, and six for women, with 9,000 students; and seven schools of science, 13 of theology, four of law, and 14 of medicine, with 4,000 students.

BROOKLYN: METHODIST GENERAL HOSPITAL.

Columbia College, chartered in 1754 as King's College, has its seat in New-York City, and stands among the foremost of American colleges. It includes a School of Arts, a School of Mines, a School of Law, a School of Political Science, a School of Medicine (the College of Physicians and Surgeons), and a Department of Graduate Instruction. There are 1,700 students, seven eighths of whom are from New York and its vicinity. Columbia has some fine modern buildings, and a library of 100,000 volumes. There are no dormitories.

Union University, at Schenectady, was founded in 1795, and Eliphalet Nott held its presidency from 1804 to 1866. It has about 120 students, besides 50 in the law school, 150 in the medical school and 50 in the college of pharmacy. Union's professional schools are at Albany.

The University of the City of New York, opened in 1832, has a handsome Gothic building, of marble, dating from 1832–5, on Washington Square, with 24 instructors and 130 students, besides 100 in the post-graduate school. The University Medical College, founded in 1842, under Valentine Mott, John William Draper and others, occupies fine modern buildings near Bellevue Hospital, with 60 instructors, 650 students (100 foreigners), and 5,000 graduates. The University Law School arose in 1858, and has 140 students.



NEW YORK: CHARITABLE AND CORRECTIONAL INSTITUTIONS.

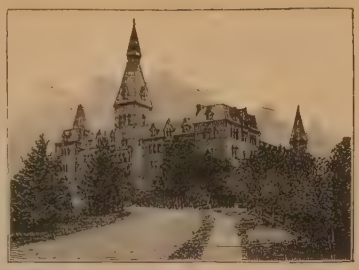
Cornell University was opened in 1868, and its growth has been phenomenal. But 24 years old, it has 121 professors and instructors and 1,377 students; a material equipment that would be extensive in an institution that could count its age by centuries; and a site that is unsurpassed in the natural beauty of its surroundings. The University is established on the broad principle expressed in the declaration of its founder: "I would found an institution where any person can find instruction in any study"; and an inspection of the programme of the University shows that in the brief space of two decades the ideal of Ezra Cornell has been very nearly realized. The institution provides a total of 250 courses of study, in the following departments: Classical Languages, Germanic Languages, Romance

ITHACA: CORNELL UNIVERSITY, AND CAYUGA LAKE.

Languages, English Language and Literature, Law, Philosophy, Pedagogy, History and Political Science, Bibliography, Mathematics, Physics, Chemistry, Metallurgy, Pharmacy, Botany and Arboriculture, Physiology, Zoology, Geology, Agriculture and Horticulture, Veterinary Science, Civil Engineering, Architecture, Mechanical Engineering, Electrical Engineering, Industrial Art, Military Science, Hygiene and Physical Culture. Cornell offers special facilities and free tuition to its own graduates and those of other colleges and universities who are accepted as candidates for advanced degrees. A number of scholarships of the yearly value of $200 and Fellowships of the yearly value of $400 are open annually, through competitive examinations, to students of exceptional ability. Charles Kendall Adams, LL. D., has been president since 1885. The annual register of the institution, which can easily be obtained by application to the Treasurer of Cornell University, Ithaca, gives considerable interesting information about this noble school.

The University has received from benefactors endowments of $1,500,000, besides the proceeds of 990,000 acres of public lands given by Congress. There are 512 free State scholarships, for young men and women, the best scholars in their Assembly districts. Its many handsome stone buildings form a great open quadrangle of about seventy acres, situated on a bold plateau of 270 acres, just east of Ithaca, and 400 feet above Cayuga Lake, down whose shining leagues the eye glances entranced. The library of 110,000 volumes, includes Anthon's 7,000 classical books, Bopp's 2,500 Orientalia, Goldwin Smith's 3,500 books, Jared Sparks' 9,000 volumes on American history, and ex-President Andrew D. White's 1,000 architectural books, besides the 30,000 volumes in the Library of History and Political Science, given by ex-President White. The museum contains several valuable collections. McGraw Hall, with its tall campanile, containing the great bell and the chimes of the University; the Sibley College of the Mechanic Arts; Sage College, a quadrangle in Italian-Gothic architecture, where the women-students live; and other fine edifices, bear witness to the wealth of Cornell. The great cruciform library of stone and tile, glass and steel, the most imposing and costly of the University buildings, took over two years to build, and was the gift of the Hon. Henry W. Sage, who also endowed it with $300,000.

Hamilton College, at Clinton, was founded in 1793, as Hamilton Oneida Academy, "for the mutual benefit of the young and flourishing settlements and the various tribes of confederate Indians." The corner-stone was laid by the Baron Steuben. In 1812, it was re-chartered as Hamilton College. There are 13 instructors and 160 students, with libraries of 35,000 volumes, and a famous observatory.


ITHACA: SAGE COLLEGE, CORNELL UNIVERSITY.

Colgate University, at Hamilton, was known as Madison University from 1846 until 1890, when it took the name of a family of generous patrons. It is a Baptist institution, with 350 students.

Syracuse University, with its rich endowments, occupies a campus of 50 acres, on a hill-top overlooking Onondaga Lake, and was founded by the Methodist Episcopal Church in 1870. It has colleges of liberal arts, medicine, and fine arts, with nearly 650 students. The John-Crouse Memorial College for Women cost $450,000, and was dedicated in 1889. The University also has a handsome Hall of Languages, 180 by 96 feet, of cut limestone; the well-known Holden Observatory; and a fire-proof library building, in which Leopold Van Ranke's fine historical library is kept.

The University of Rochester owns a group of stone buildings, with eleven professors and 175 students. It was established by the Baptists in 1850, and has property valued at above $500,000. The library contains 25,000 volumes, and there are valuable collections in art, archæology, and geology, and the Trevor Observatory and Reynolds Memorial Laboratory.

The College of the City of New York was constituted in 1866, from the Free Academy, and has a large building in Dutch secular architecture. There are 50 instructors, and nearly 1,000 students, more than half of whom belong to the preparatory school.

NEW YORK: UNION THEOLOGICAL SEMINARY.

The College of St. Francis Xavier, and Manhattan College, at New York; Niagara University, near Suspension Bridge; St. John's College, at Fordham; and others pertain to the Catholic Church. St.-Lawrence University is a Universalist institution, with 80 students, founded at Canton in 1856. Hobart College, a well-endowed Episcopal school, with 75 students, was founded in 1825, at Geneva, near the pleasant scenery of Seneca Lake. St.-Stephen's College, opened in 1858, at Annandale, on the Hudson, educates young men for the Episcopal General Seminary, and occupies several halls, on a domain of 30 acres. It has 7,000 volumes in its library, and an astronomical observatory. There are seven professors and 56 students.

Vassar College, one of the foremost American schools for women, has a noble building, modelled after the Tuileries Palace, and several other structures, with a rich art-gallery, a library of 18,000 volumes, museum and observatory, on a campus of 200 acres, along a highland plain, two miles east of Poughkeepsie, and nobly overlooking the Hudson Valley. It was founded in 1865, by Matthew Vassar, with an endowment of $400,000. His declared object was to "provide such an education for the women of this country as would be adequate to give them a position of intellectual equality with men in domestic and social life." There are 34 teachers and 300 students. Alfred University was opened in 1857, by the Seventh-Day Baptists, in the hill-country of Western New York, and has 80 students. Ingham University, at LeRoy, arose in

ALBANY: DUDLEY OBSERVATORY.

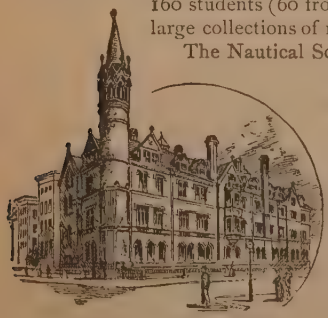
1857, from an older collegiate institute. It has 130 women students. Wells College, another girls' school, has a beautiful situation at Aurora, on Cayuga Lake. The Elmira Female College is a prosperous school, dating from 1855. Rutgers Female College was founded in 1838, in New-York City; and became a college in 1867.

The Pratt Institute for industrial education, in Brooklyn, is the largest school of the kind in the world. It has four acres of floors, and three acres of playgrounds. The main building is of brick and terra-cotta, six stories high, with the buildings of the department of mechanic arts in the rear. These structures are both fire-proof, and date from 1885–7. The students have the use of the great library, reading-rooms, and lecture-halls. Among the industries practically taught are sewing, dress-making, millinery, art-embroidery, short-hand, type-writing, drawing, painting, modelling, wood-carving, architecture, and mechanical drawing, with lectures from accomplished masters. The fifth floor contains a noble technical museum, and another story is given to the cooking-schools. The department of mechanics includes smithies, a foundry, machine-shops, carpenter-shops, and facilities for teaching the building-trades, bricklaying, stone-carving, plumbing, and other departments.

SYRACUSE: JOHN CROUSE MEMORIAL COLLEGE, SYRACUSE UNIVERSITY.

The Rensselaer Polytechnic Institute was founded in 1824, at Troy, by Stephen Van Rensselaer, as a school of theoretical and practical science; and now has 18 instructors and 160 students (60 from other States, and 13 foreigners). The Institute owns large collections of minerals, shells and birds, and has several good buildings.

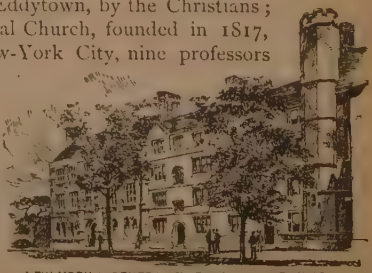
The Nautical School of the Port of New York has 120 boys, who are taught for two years, cruising meanwhile on the war-ship *St. Mary's*.



NEW YORK: COLUMBIA COLLEGE.

The Chautauqua University is on the correspondence method of home-reading, directed by the society, and has had over 100,000 members since Bishop John H. Vincent founded it, in 1878. The offices of this magnificent popular movement are at Buffalo, and its summer-home is at Chautauqua Lake.

The theological seminaries are Hamilton, the oldest American Baptist divinity school (opened in 1819), with large endowments, several buildings and 130 acres of land, 50 students, and a library of 20,000 volumes; Rochester, opened in 1851, a Baptist school, with $500,000 endowment and several fine buildings, over 1,000 graduates (one fourth Germans), ten instructors and 100 students, and a library of 24,000 volumes (including Neander's private library); the Christian Biblical Institutes, founded in 1869 at Standfordville and Eddytown, by the Christians; the General Theological Seminary of the Episcopal Church, founded in 1817, with imposing buildings on Chelsea Square, New-York City, nine professors and 90 students, a library of 22,000 volumes, and real-estate valued at $600,000; DeLancey Divinity School, at Geneva; St.-Andrew's Divinity School, founded by Churchmen in 1876, at Syracuse; Hardwick Seminary, established by the Lutherans in 1815, in Otsego County; Auburn Theological Seminary, founded in 1819, for the teaching of strong Princeton Presbyterian doctrine, and possessing several fine buildings, eight pro-



NEW YORK: GENERAL THEOLOGICAL SEMINARY.

fessors, 50 students, and 700 graduates; Union Theological Seminary, opened at New-York City in 1836 by New-School Presbyterians, and now possessing property worth $1,500,000, a library of nearly 60,000 volumes, ten instructors, 130 students, and 1,500 graduates; and the Universalist Divinity School at Canton, founded in 1858, and possessing five instructors and 14 students. The Catholics are served by St.-Joseph's Provincial Seminary, at Troy, with seven instructors and 120 students; St. Bonaventure's, at Allegany; and the Seminary of Our Lady of Angels, Suspension Bridge, near the stupendous gorge of the Niagara River below the falls.

NEW YORK: COLLEGE OF PHYSICIANS AND SURGEONS.

There are law schools at New York, Albany, Clinton, and Ithaca; medical schools at New-York (nine in number), Buffalo (two), Syracuse, Brooklyn, and Albany; a dental school at New York; pharmaceutical schools at Albany, Buffalo, and New York; and a veterinary school at New York.

New York has 57 public libraries of above 10,000 volumes, the chief of which are the Astor, 225,000 volumes; Mercantile, 215,000; New-York Society, 80,000; New-York Historical Society, 75,000; Columbia College, 70,000; Apprentices', 70,000; Union Theological Seminary, 50,000; and Lenox, 25,000, all in New-York City; Brooklyn, 90,000, and Long-Island Historical Society, 42,000, at Brooklyn; Buffalo, 66,000, and Grosvenor, 32,000, at Buffalo; the great State libraries at Albany; and the college libraries. These collections contain upwards of 2,000,000 volumes.

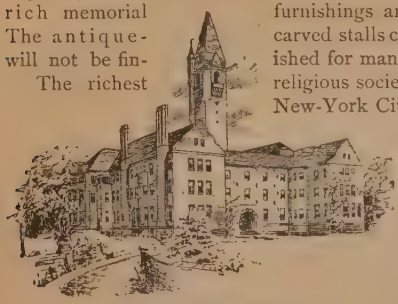
Religion is professed in this great commonwealth by more than 1,200,000 persons, representing an attendance of 4,000,000. There are nearly 7,000 churches, valued, with the connected ecclesiastical properties, at $125,000,000; and 70 religious sects find adherents here. The Catholic Province of New York includes the States of New Jersey and New York. The State contains the dioceses of New York, Albany, Brooklyn, Rochester, and Buffalo. The Cathedral of St. Patrick, in New-York City, is the most magnificent church in America, a decorated Gothic building of white marble, with two richly carved marble spires, 70 great windows of stained glass from Chartres, and several costly altars of marble and gems. It was built in 1858 79, at a cost of $2,000,000. The huge and fortress-like Church of St. Paul the Apostle is the headquarters of the celebrated preaching Order of the Paulists, whose monastery adjoins it. One of the most celebrated Catholic shrines in the United States is the chapel of Our Lady of Martyrs, at Auriesville, in the Mohawk Valley, commemorating the martyrdom of Father Jogues at the hands of the Indians.

TROY: RENSSELAER POLYTECHNIC INSTITUTE.

New York is divided into five Protestant Episcopal dioceses, New York, Long Island, Albany, Central New York, and Western New York, founded between 1785 and 1863. There are 900 churches and 50,000 communicants. The Cathedral of St. John the Divine is about to be erected on the heights near Morningside Park, in New-York City; and if the outlined plans are carried out, it will be the most magnificent church in North America. The Cathedral of the Incarnation, at Garden City, is a Gothic structure of sandstone, with rich carvings and stained windows, six

POUGHKEEPSIE; VASSAR COLLEGE.

organs, a bronze pulpit, and the mausoleum of A. T. Stewart. Near by stands St.-Paul's School, and the See-House of Long Island. The Cathedral of All Saints, at Albany, was begun by Bishop Doane, in 1884, in Spanish Gothic architecture, 270 feet long, with many rich memorial furnishings and windows, and a noble rood-screen and altar. The antique-carved stalls came from a mediæval Belgian church. All Saints will not be finished for many years.


AURORA : WELLS COLLEGE.

The richest religious society in America is Trinity Episcopal Parish, in New-York City. It received from Queen Anne in 1705 a tract of land on Manhattan Island, which, with its buildings, is now worth $9,000,000. Unfortunately, most of it has been given away by the parish. The income remaining is devoted to founding and maintaining chapels and missions, and to benefactions among the poor. The cathedral-like old stone church, with a spire 284 feet high, holding the finest chime of bells in the country, stands on Broadway, at the head of Wall Street. It was finished in 1846, Richard M. Upjohn being the architect.

Lutherans came to Manhattan among the first immigrants, but were prohibited from having a church. In 1671, however, they erected a house of worship; and about 40 years later grew strong by the accession of the Palatines, a great body of Germans driven from the Lower Palatinate of the Rhine by the armies of Louis XIV. of France.

The Presbyterian House (the old Lenox mansion, in New-York City), contains some of the chief offices of this denomination. Dr. John Hall's church in New-York City is the largest Presbyterian church in the world. The State religion of New Netherland, for 30 years was the Reformed Protestant Dutch Church, which was re-named the Reformed Church in 1869. It has ten Classes in New York. Some of the most extraordinary of American religious beliefs and social experiments sprang from the Empire State. At New Lebanon, on the Massachusetts border, is an industrious Shaker community of 500 persons, founded in 1780 by Mother Ann Lee as "the capital of the Shaker world," and kept up after her death by the hierarchy of the Holy Lead. Elias Hicks, the founder of a well-known Quaker sect, lived and preached on Long Island from 1771 to 1830. The first "raps" of Spiritualism were heard at Hydeville, by the Fox sisters, in 1849, since which time this belief has spread over many countries. The Foxes soon afterward moved to Rochester, "the Bethlehem of the new dispensation," and gave public tests and manifestations, demonstrating to the belief of many people the possibility of intelligent communication with the unseen world.

BROOKLYN : PRATT INSTITUTE.

One of the two chief centres of the Millerite fanaticism was Rochester, where, in 1844, thousands assembled in Talman Hall to await the world's end. The Church of Jesus Christ of Latter-Day Saints was founded in 1830, at Fayette (N. Y.), by a Vermont religious enthusiast named Joseph Smith, who claimed to have found the Book of Mormon, inscribed on golden plates, and buried in the hill Cumorah (near Manchester, N. Y.). Suffering great persecutions the Church in 1847 made its wonderful exodus of 1,500 miles across the plains to Utah. In 1847 John H. Noyes founded the cele-

NEW YORK : THE COOPER UNION.

brated Oneida Community, based on a thrifty communism, but for many years obnoxious for its unconventional family ways. Since 1881 it has been simply a business corporation. Gerrit Smith of Utica inherited one of the largest land domains in America, and gave away 200,000 acres, mostly in 50-acre farms, to poor men. He became one of the noblest leaders in the Anti-Slavery cause. Rochester was one of the chief places of the Anti-Slavery movement, under Myron Holley and Frederick Douglass; and John Brown planned his Harper's-Ferry raid here. The Woman's-Suffrage agitation has also been largely generaled from Rochester, for many years the home of Susan B. Anthony, "the Napoleon of the Woman's-Rights Movement." The dress-reform movement illustrated by the Bloomer costume was inaugurated by Mrs. Amelia Bloomer, at Seneca Falls, in 1849.

NEW YORK: LENOX LIBRARY.

The mysterious semi-Pagan rites of the Indians on their reservations, and the worshipping ceremonies of the Chinamen in their joss-houses, are allowed and guarded by this tolerant commonwealth.

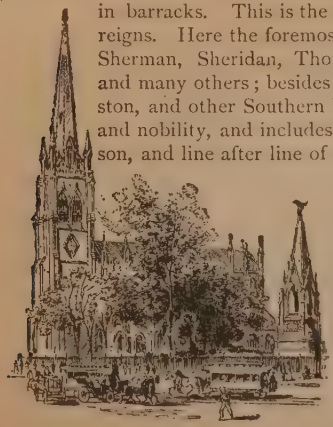
And when their doubts are solved in the white light of Eternity, the last remains of the people are consigned to the most beautiful cemeteries in the world. The peerless Greenwood, near Brooklyn, was begun in 1842, and now covers 450 acres, with 220,000 graves and 37 miles of avenues and paths, overlooking the quiet beauties of the bay. Elsewhere around New York are Cypress Hills (1848), with 120,000 graves; Evergreen (1851), with 75,000; Calvary (1848), a Catholic cemetery, with 400,000 interments; Woodlawn (1863), on the Harlem Railroad; the Lutheran, with 100,000 graves; and many other final resting-places. Other cities are also adorned with these embowered God's-acres, like the Rural, at Albany; Oakwood, at Troy; Forest-Lawn, at Buffalo; Mount Hope, near Rochester; and Forest-Hills, at Utica.

BUFFALO: MUSIC HALL.

The National Institutions in New York are of great importance and renown. The United-States Military Academy occupies 2,200 acres on the historic promontory of West Point, amid the Highlands of the Hudson, with ancient castellated stone barracks and academic buildings, several batteries, and the ruins of the Revolutionary forts which made this for a time the Gibraltar of America. Here are preserved standards and trophies of the Shawnee, Seminole, British, Mexican, Secession, and other wars; famous cannon, won from the enemies of the Republic; and the graves of Gens. Scott, Anderson, Custer, Kilpatrick, Thayer, Buford, and other military chieftains. The library occupies a handsome stone building, and contains 37,000 volumes, and portraits of many old-time officers; and Grant Hall, where the cadets take their meals, is adorned with large portraits of Grant, Sherman, Sheridan and other generals. The parade ground has statues of Gen. Sedgwick and Col. Sylvanus Thayer, "The Father of the Military Academy." One company of engineer troops is stationed at this post. A number of officers are detached for duty in instruction. This locality was chosen by Washington for the site of a National military school, which opened in 1812. Every Congressional district is entitled to send here one youth, physically perfect, and well-grounded in elementary studies. Cadets receive $540 a year for four years, with a discipline and instruction unequalled elsewhere in America for exaction and

BUFFALO:
BUFFALO LIBRARY AND SOLDIERS' MONUMENT.

thoroughness. The graduates enter upon the rank and pay of second lieutenants of the regular army, and are sent to the frontiers. There are 300 cadets, in a battalion of four companies, uniformed in gray; and they pass two months of each year in camp, and ten months in barracks. This is the great school of the people, where absolute democracy reigns. Here the foremost generals of the Republic have been educated: Grant, Sherman, Sheridan, Thomas, Hancock, Howard, Hooker, McClellan, Buell, and many others; besides Lee, Jackson, Johnson, Beauregard, Longstreet, Johnston, and other Southern leaders. The scenery of this region is of great beauty and nobility, and includes the deep-green highlands, the broad vistas of the Hudson, and line after line of far-away blue mountains, receding in the distance.



NEW YORK: TRINITY CHURCH AND MARTYRS' MONUMENT.

The Engineer School of Application is at Willett's Point, on Long-Island Sound, and provides practical instruction for the younger engineer officers, and torpedo-practice for artillery officers. This post is the headquarters of the Battalion of Engineers, U. S. A., of which three companies (370 men) are stationed here, and the remaining company at West Point.

The United-States Arsenal at Watervliet, near Troy, was founded by Col. Bomford, in 1814, and covers over 100 acres, with 40 buildings for making, repairing and storing munitions of war. In 1861–5, 1,500 persons were employed here, day and night. Many military trophies are preserved on the grounds. The great gun-factory for the United-States Army has recently been established here.

NEW YORK: TEMPLE EMANUEL.

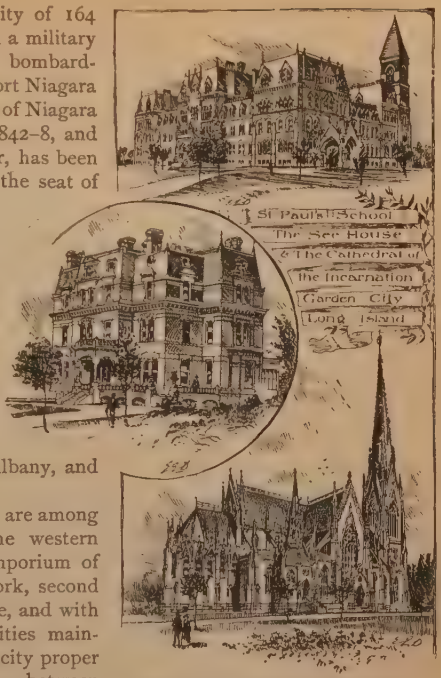
The United-States Navy Yard at Brooklyn is the chief naval station of the Republic, and contains many acres of foundries, store-houses, and workshops, trophy-batteries, and a naval museum, large barracks and hospitals, and two docks, which cost $5,000,000.

The military defences of New-York City include the great fortresses at the Narrows, converging the fire of 400 heavy guns on a passage less than a mile wide. Fort Wadsworth, on Staten Island, is supported by several detached cliff-batteries, and Fort Tompkins; and on the opposite shore, under Bay Ridge, rise the granite walls of Fort Hamilton, with modern detached batteries. On a reef in the stream are the ruins of Fort Lafayette, once famous as a military prison for disloyal Southerners. The inner harbor has 300 cannon in position, in Forts Columbus, Gibson and Wood, on the islands. Governor's Island, only half a mile from the Battery, contains the three-story fortress of Castle William, dating from 1811; Fort Columbus, a star-shaped work mounting 120 guns; the National Military Museum; and extensive barracks and magazines. The approaches to New-York City from Long-Island Sound are guarded by the massive works of Fort Schuyler, on Throgg's Neck, and other defences.

NEW YORK: ST. PATRICK'S CATHEDRAL.

Fort Montgomery, near Rouse's Point, commands the Richelieu River, and was commenced about 1815.

It is a large stone fortress, with a capacity of 164 guns. Fort Ontario, at Oswego, has been a military post for more than a century, and suffered bombardment from Sir James Yeo's fleet in 1814. Fort Niagara is a small and ancient defence at the mouth of Niagara River. Fort Porter, at Buffalo, built in 1842–8, and a military depot during the Secession War, has been replaced by barracks. Sackett's Harbor, the seat of the chief naval station on Lake Ontario in the war of 1812, and often attacked by British squadrons, is guarded by the Madison Barracks. Another large military cantonment was established at Plattsburg in 1838, and is still in use. The National buildings include the Post-Office (finished in 1875; having cost $7,000,000), Custom-House (built in 1835; cost $1,800,000), and the beautiful marble Sub-Treasury at New-York City, and the huge and costly public offices at Brooklyn, Albany, and other cities.



GARDEN CITY: CATHEDRAL AND SCHOOLS.

The Chief Cities of the Empire State are among the most attractive and prosperous on the western continent. The great metropolis and emporium of the State and of the Republic is New York, second only to London in population and influence, and with its contiguous and dependent municipalities maintaining a population of 2,500,000. The city proper occupies Manhattan Island, 13 miles long, between the Hudson River and the deep estuary of the East River, together with 12,500 acres of the mainland on the north, as far as Yonkers (annexed in 1874); and now has about 1,600,000 inhabitants. The Lower Bay, with its two deep ship-channels, lies between Sandy Hook and Coney Island; and New-York Bay is entered thence by the picturesque strait called the Narrows, between Staten Island and Long Island, and hemmed with heavily-armed fortresses. This magnificent inner harbor is fringed by the populous shores of Brooklyn, New York and Jersey City, and overlooked by the blue Orange Mountains. It is one of the most beautiful and impressive harbors in the world. Nearly two thirds of the import and export business of the United States passes through this port. New York is also the foremost manufacturing city in America, with 11,000 factories, making upwards of $500,000,000 worth of goods yearly ($80,000,000 worth of clothing, $25,000,000 worth of books and papers, and $18,000,000 worth of cigars). The chief gateway of the Republic for European immigrants, until 1891, was Castle Garden, on Battery Park, where ten million persons made their first landing in America. Its largest structure is the old fortress of Castle Clinton, built in 1807,

NEW YORK: MADISON SQUARE GARDEN.

NEW YORK: NATIONAL ACADEMY OF DESIGN.

and ceded to New York in 1823. Immigrants are now received at Ellis Island. Many of the arriving Europeans settle in the metropolis, one sixth of whose population is Irish, and one eighth German, with large colonies of Britons, Canadians, Frenchmen, Italians, Russians, Spaniards, Chinamen, and other nationalities. This is the most cosmopolitan of American cities, with a Parisian vivacity and brilliancy, and an astonishing versatility of gifts. With its great publishing houses, the Harpers, Scribners, Appletons and others, its inimitable magazines, and its strong literary societies, New York rivals Boston as a centre of letters. In music and in art it holds an indisputable preëminence. The Metropolitan Museum of Art, in Central Park, is one of the largest collections in the world, and much the most important in America, with its Cesnola treasure-trove from Cyprus, the Summerville gems, valuable collections of statuary, and many hundreds of paintings, including Rosa Bonheur's *Horse Fair*, Rubens's *Return from Egypt*, Couture's *Decadence of Rome*, Rembrandt's *Burgomaster*, Velazquez's *Don Baltasar*, Van Dyck's *Duke of Richmond*, Turner's *Saltash*, and many other noble works. The gallery of the Lenox Library has 150 fine pictures, by Turner, Gainsborough, Reynolds, Vernet and other masters. The American Museum of Natural History is a mammoth structure, on one side of Central Park, containing collections of birds, shells, fossils, birds' nests, minerals, reptiles, fishes, and ethnological antiquities, unrivalled elsewhere in America. Among the statues in New-York City are those of Washington, Lafayette, Lincoln, Hamilton, Farragut, Webster, Seward, Shakespeare, Burns, Sir Walter Scott, Franklin, Garibaldi, Fitz-Greene Halleck, and Bolivar, with colossal bronze busts of Mazzini, Schiller, Humboldt, and Beethoven. The Obelisk, in Central Park, was erected in Egypt 3,500 years ago by King Thutmes III., and brought here in 1877, by Wm. H. Vanderbilt. Many of the statues are in Central Park, the most beautiful and popular pleasure-ground in America, constructed since 1856, at a cost of $15,000,000, and covering 862 acres, five miles north of the Battery.

NEW YORK: METROPOLITAN OPERA HOUSE.

Among the wonders of the city are the elevated railroads, with their trains of cars continually flying up and down Manhattan Island; the swarms of great steam ferry-boats, traversing the East River and Hudson River; the municipal palaces on City-Hall Square; the vast prisons and asylums on Blackwell's, Randall's and Ward's Islands; the summer pleasures of Coney Island, Rockaway and Long Branch; the luxurious homes of Fifth Avenue, where the Vanderbilts, Belmonts, Lorillards, Astors, and others dwell; the palatial club-houses of the Union League, Manhattan, St. Nicholas, University, and other clubs; the rich collections of the Geographical, Historical, Ethnological, Numismatic, Microscopical, Horticultural and other societies; the fortress-like armories of the militia regiments; and the prodigious buildings of the *World*, *Times*, *Tribune*, *Staats Zeitung* and other newspapers on Printing-House Square.

NEW YORK: METROPOLITAN MUSEUM OF ART.

The great city of Brooklyn, famous for its hundreds of churches, is practically a residence-quarter of New York. Its population has increased from 7,175 in 1820 to over 800,000 in 1890. It has eight miles

NEW-YORK HARBOR:
CASTLE WILLIAM, ON GOVERNOR'S ISLAND.

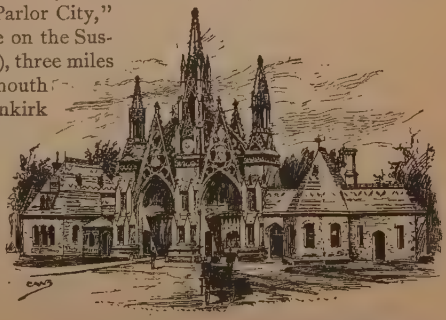
of water-front, on East River and Gowanus Bay, with huge docks and basins, where $300,000,000 worth of goods are stored every year. Prospect Park covers over 600 acres, with delightful ocean-views, and has no superior in America. Green Wood Cemetery is the most beautiful in the world. Brooklyn is the fourth American city in manufactures, its products amounting to $180,000,000 yearly.

NEW-YORK HARBOR: FORT WADSWORTH, ON STATEN ISLAND.

Buffalo is one of the three chief ports on the Great Lakes, with enormous receipts of grain, lumber and live-stock, and shipments of coal, salt and cement, and long lines of elevators and flour-mills. This city comes close to Pittsburgh, in its iron and steel works, and also has oil-refineries, breweries, leather-works and many other manufactories, employing 18,000 operatives, and with a yearly product of $45,000,000. There are many interesting public buildings; and handsome parks and boulevards, which have cost $1,500,000. The harbor is the best on Lake Erie, with protecting breakwaters and a tall light-house; and the Erie Basin is the beginning of the world-renowned Erie Canal. Nineteen railroads enter Buffalo; and four steamship lines, with 56 first-class steamers, of from 1,800 to 2,800 tons, running to the ports of the Great Lakes. Over 160,000,000 bushels of grain and flour have been received here in a single year. The City and County Hall is a noble structure of Maine granite, built at a cost of $1,350,000, and occupied in 1876. The Music-Hall building is a handsome Romanesque edifice. The Buffalo Library has a magnificent fire-proof building, finished in 1887, at a cost of $350,000, and containing also the Fine-Arts Academy, Society of Natural History, and Buffalo Historical Society.

BROOKLYN: CITY HALL AND COURT HOUSE.

There are 30 cities in this great State. Albany, 142 miles up the Hudson, was founded by the Dutch, as Fort Orange, in 1623, and is at the eastern end of the great Erie Canal, with magnificent State, city and ecclesiastical buildings, and a situation which has won for it the name of "The Edinburgh of America." Here also are great stove-foundries, breweries, and cattle-yards, employing 15,000 persons. Amsterdam (17,336 inhabitants), with its great knit-goods and broom factories, rests on the rich intervales of the Mohawk. Auburn (25,858), the capital of Cayuga County, utilizes the water-power of the Owasco Outlet. Binghamton (35,005), "The Parlor City," is an iron and coal handling railroad centre on the Susquehanna and Chenango. Cohoes (22,509), three miles from Troy, has a great water-power at the mouth of the Mohawk, with many factories. Dunkirk (9,416) extends along an artifical harbor on Lake Erie. Elmira (29,708), on the Chemung, is the chief city of the southern tier of counties, with car-shops and a large country trade. Hornellsville (10,996) has several railways among the hills of Steuben. Hudson (9,970), on a high plateau at the head of ship-navigation on the Hudson River, was founded in 1783 by New-



BROOKLYN: GREEN WOOD CEMETERY ENTRANCE.

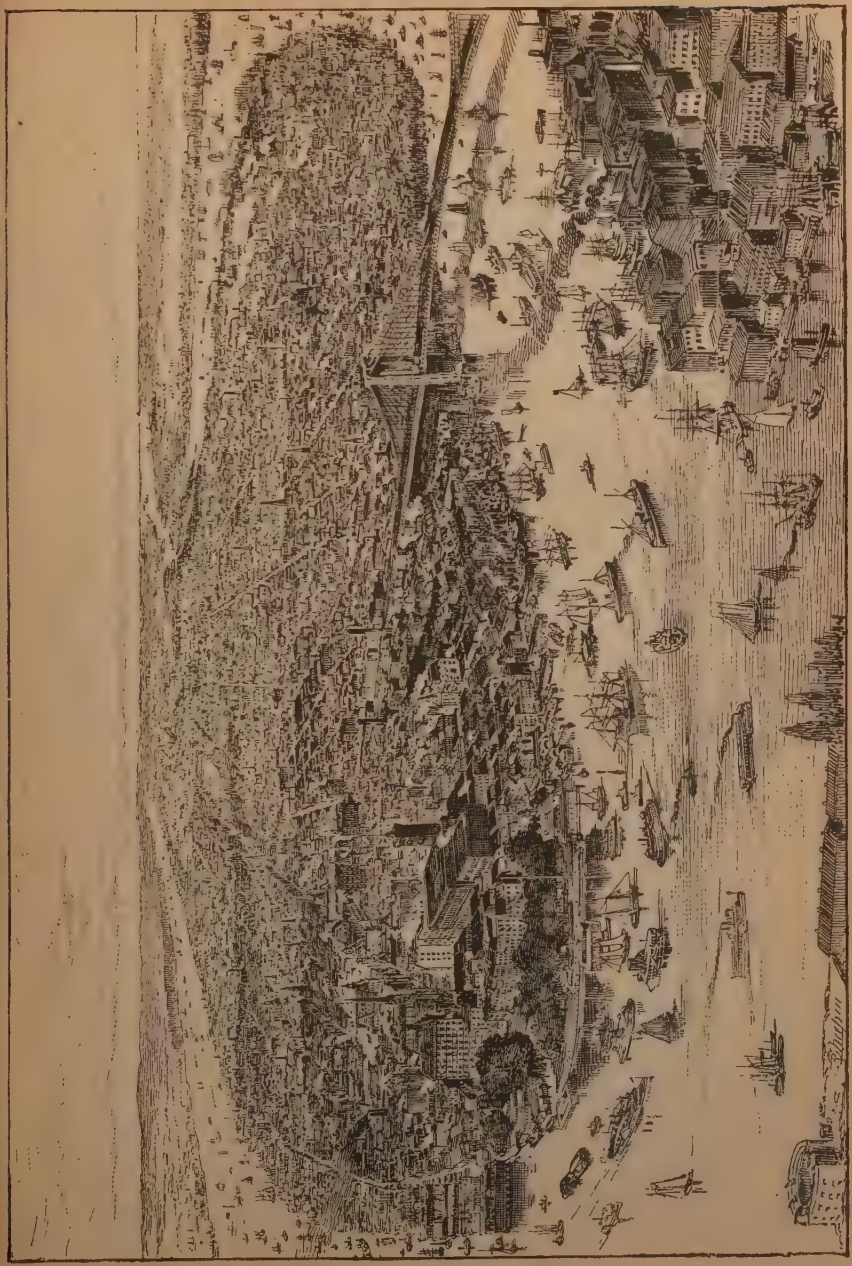
Englanders as a whaling-port. Ithaca (11,079) rests in a beautiful region of glens and cascades, at the head of Cayuga Lake. Jamestown (16,038) is on the outlet of Chautauqua Lake. Kingston (21,261), the venerable capital of Ulster, with its academies, lies on the Hudson, near the Catskill Mountains, and ships blue-stone, brick and hydraulic cement. Lockport (16,038) has the long series of locks by which the Erie Canal descends from the Erie level to the Genesee level. Long-Island City (30,506) fronts New-York City, across the East River. Middletown (11,977) lies near the Shawangunk Mountains, and supplies the Orange Valley. Newburgh (23,087) has a pleasant site on the Hudson, just above West Point, with great shipments of Pennsylvania coal. The mystery of ice-yachting has its highest development here. Ogdensburg (11,662) is on the St.-Lawrence River, and handles great quantities of grain. Oswego (21,842), the chief harbor on Lake Ontario, is another important grain-port, with large flour-mills. Poughkeepsie (22,206) crowns a breezy plateau by the Hudson, and has several famous schools and a valuable country-trade. Rochester, at the Genesee Falls, seven miles from Lake Ontario, contains immense flour-mills, and world-renowned nurseries of flowers and fruits. Rome (14,991) is a railway and canal centre, with farming-implement factories, on the site of old Fort Stanwix, near the Mohawk. Schenectady (19,902) is an old Dutch city on the Mohawk meadows, with car, locomotive and machine works, 17 miles west of Albany. Syracuse, near Onondaga Lake and its great salt-works, and midway between Albany and Buffalo (hence called "The Central City"), has costly public buildings and lucrative manufactures, and a large Lake-Ontario commerce. Troy, six miles north of Albany, and at the head of steam navigation on the Hudson, is famous for its stove-foundries and rolling-mills and laundries. Utica is a railway and canal centre, in the rich and prosperous centre of New York. Watertown (14,725) has several factories on the rapids of Black River, in the north. Yonkers (32,033) is a handsome suburb of New-York City, on the Hudson and facing the Palisades. Among the other large towns are Corning, 8,550; Flushing, 10,868; Geneva, 5,878; Gloversville, 13,864; Lansingburgh, 10,550; Little Falls, 8,783; Mount Vernon, 10,677; New Brighton, 16,423; New Rochelle, 8,318; Peekskill, 9,676; Port Jervis, 9,327; Saratoga Springs, 11,975; Sing Sing, 9,352; and West Troy, 12,967.

In Maritime Commerce and ship-building New York leads all the States. She builds one fifth (in value) of the American commercial fleets, and owns one fourth of them. Five eighths of the canal boats in the Republic belong here.

The fisheries employ 7,000 men and 540 vessels, with a yearly product of above $4,000,000. The imports approximate $500,000,000 yearly, and the exports $400,000,000.

The internal trade of New York exceeds $2,000,000,000 a year; $1,650,000,000 worth of freight passes over the railroads, $150,000,000 over the canals, and $250,000,000 over the sound and lakes.

Canals were first planned here in 1761, by Gen. Philip Schuyler, who devised a water-route by the Mohawk to Oneida Lake and Lake Ontario. It was discussed before the Legislature by Sir Henry Moore, in 1768, and recommended later by Gen. Washington. In 1796, 16-ton boats passed from Schenectady to Oneida Lake and Lake Ontario, by the locks and canal of the Western Navigation Company. The Erie Canal was begun at Rome in 1817, and finished in 1825, when the water of Lake Erie entered the "Great Ditch," and a triumphal flotilla started down its course from Buffalo to Albany, bearing Gov. De Witt Clinton, Col. W. L. Stone, the Van Rensselaers, and others. From Albany the boats were towed to New York, and out to sea beyond Sandy Hook, where barrels of Lake-Erie water mingled with the salt tides, in the presence of an imposing marine procession. This vast public work has been the means of transporting billions of dollars' worth of Western products to the sea, and has had a powerful influence in making New York the great shipping-port of America. It is seven feet deep, 52½ feet wide at the bottom, and from 70 to 80 at the top. The length is 364 miles. The canal was intended for 100-ton boats, but the volume of business quickly overflowed these dimensions, and



NEW YORK: THE METROPOLIS OF THE WESTERN HEMISPHERE.

NEW YORK: UNION SQUARE.

between 1832 and 1862 the prism and locks were enlarged to carry 240-ton vessels. The boats cost from $3,000 to $5,000 each, and make six round trips every season, each carrying more than a freight-train, and running from Buffalo to Albany, in eleven days and nights, the crews being divided into two watches. During the season 150 boats reach the Hudson daily. There are 75 steam canal-boats. For many years the Erie Canal was traversed by regular lines of packet-boats for passengers, gliding at the rate of six miles an hour through the romantic and beautiful scenery of Central New York.

The total cost of building the Erie Canal has been in excess of $50,000,000, but it has been repaid to the State by tolls, together with the cost of superintendence and repairs, and a clear profit of above $40,000,000. In 1862 alone the tolls on the New-York canals exceeded $5,000,000; and in 1868 the value of merchandise carried was $305,000,000. The maximum tonnage (6,673,370), was transported in 1872. In 1844 the canal-boats averaged 64 tons; and in 1880 they reached 212 tons. The cost of freight from Albany to Buffalo was 25 cents a ton a mile, in 1820. In 1884, it had fallen to 27.7 mills. The saving on the cost of the freight moved between Albany and Buffalo in 1850 alone was $252,000,000. In 1882, the people of New York voted, 486,105 to 163,151, to abolish the tolls on their canals, and make them free forever. The United-States Government is now contemplating enlarging the Erie and Champlain Canals into water-routes for ships.

The Champlain Canal, joining Lake Champlain to the Hudson at Fort Edward, and by slack-water navigation reaching the Erie Canal near Cohoes, was built in 1818-23, and is the avenue of a large commerce. The Black-River Canal, built in 1836-49, runs from Rome to Boonville, on Black River, and has 106 locks in 87½ miles. The Chenango Canal from Utica to Binghamton, 97 miles; the Chenango Extension, beyond Binghamton; the Crooked-Lake Canal, from Penn Yan to Dresden, on Seneca Lake; the Chemung Canal, from Elmira to Watkins, on Seneca Lake; the Genesee-Valley Canal, from Rochester to the Allegany River; and the Junction and Oneida-Lake canals; were built between 1830 and 1840, at a cost of over $12,000,000, and were abandoned between 1874 and 1878. The canals cost the State for their construction and enlargement, $101,000,000 during the half-century, 1825 to 1875. For some years past the canals have accommodated annually a tonnage of about 5,000,000. In 1884 this was divided, as follows: Erie, 3,840,000; Champlain,

NEW YORK: CITY-HALL PARK AND PRINTING-HOUSE SQUARE.
CITY HALL. "WORLD." "SUN." "TRIBUNE." "TIMES."

1,230,000; Cayuga and Seneca, 196,000; Oswego, 176,077; and Black River, 112,000. Eastward-bound floated 4,000,000 tons; westward-bound, 1,600,000. Of this vast freight, 1,600,000 tons were farm-products; 1,500,000, forest-products; 380,000, merchandise; and 200,000 manufactured goods. In 1888 the canal business fell away 500,000 tons, owing to short crops, grain corners, high freight-rates, and rate-cutting by railroads.

NEW YORK: MANHATTAN CLUB.

The Delaware & Hudson Canal was built in 1825–8, at a cost of $2,000,000, and extends from Rondout, on the Hudson to Port Jervis, on the Delaware, 59 miles; thence up the Delaware Valley to Lackawaxen, 24 miles; and thence to the coal-mines at Honesdale (Penn.), 26 miles. There are 109 locks, with a total rise and fall of 950 feet. The depth is 6 feet; and 120-ton boats are used. This canal was built by a private company, to whom it still belongs; and is mainly used for transporting coal.

The Bridges of this State include some celebrated engineering works. The East-River Bridge is 5,989 feet long, and 135 feet above the water, erected in 1870–83, at a cost of $15,000,000. This greatest of bridges is suspended by steel-wire cables from stone piers 272 feet above high tide, and carries a promenade, railway tracks, and carriage-ways, joining Brooklyn and New York. The bridge was designed by John A. Roebling; and its wonderful suspended superstructure, of fitted steel, was made by the Edge Moor Bridge Works, of Wilmington (Del.). The Poughkeepsie Bridge is 1¾ miles long, and rests on four pyramidal steel towers 100 feet high (20 feet below high water), and these again upon timber caissons 60 by 100 feet and 100 feet high. There are three cantilevers, with connection spans. This bridge was begun in 1873, to afford unbroken railway communication between the Pennsylvania coal-fields and the New-England cities.

NEW YORK: UNION LEAGUE CLUB.

The International Bridge from Black Rock (Buffalo) to Fort Erie (in Canada) was built in 1870–73, with English capital, under the authority of Congress and Parliament and the State and Province Governments. The cost was about $1,500,000. Crossing the Niagara River, the bridge is 1,967½ feet long, with two draw-openings of 160 feet each. It then traverses Squaw Island for 1,167 feet, and Black-Rock Harbor for 517 feet, making a total length of 3,651½ feet. It is mainly used for railway freight traffic, and unites the New-York Central, West-Shore, Erie, Lackawanna, and Lehigh-Valley lines with the Grand Trunk and Michigan Central routes. The wonderful Cantilever Bridge, near Niagara Falls, is one of the most interesting of American mechanical triumphs. It rests on lofty steel towers rising from the shores of the wild rushing river; and sustains a double-track railway, used by the heaviest trains. Not far away is the famous Suspension Bridge, built by Roebling in 1852–5. The New Suspension Bridge near Niagara Falls is 200 feet above the rushing river. The Arthur-

BUFFALO: THE CITY HALL.

BUFFALO: ELEVATORS AND COMMERCE OF THE LAKES.

Kill Bridge crosses from New Jersey to Staten Island, and was authorized by Congress, the United-States courts overruling the injunction placed on it by New Jersey. Its drawbridge is the largest in the world (500 feet long). The new Washington Bridge, in New-York City, was built in 1886–90, at a cost of above $3,000,000, and is mainly composed of two arches of Bessemer steel, each of 508 feet, springing from high granite abutments, and carrying a 50-foot roadway of Trinidad asphalt, besides broad sidewalks. The Keystone Bridge Company, of Pittsburgh, built the Arthur-Kill Bridge, and also the Madison-Avenue Bridge, at New York, and the Iron Pier, at Coney Island. The High Bridge is a noble granite structure, 1,450 feet long and 114 feet high, carrying the Croton Aqueduct across the deep Harlem Valley, on 14 massive piers.

The new dam of the Croton Water-Works, at Quaker Bridge, is the largest in the world. It was constructed in 1887–91, at a cost of $3,000,000, and is 1,350 feet long and 277 feet high, and 216 feet wide at the bottom. 40,000,000,000 gallons, or the rainfall of 300 square miles, will be impounded by this gigantic rampart.

Another interesting work of New-York engineers is the great Croton Aqueduct, over 40 miles long, finished in 1842, at a cost of nearly $30,000,000, Over $60,000,000 has been collected in water-rates. The tunnels, now being cut under the broad Hudson River, from New-York City to the New-Jersey shore were begun in 1873. The Cataract Construction Company is cutting a large hydraulic tunnel through the rock, from a mile or two above Niagara Falls to the Niagara River below the falls, to utilize the illimitable water-power here running to waste. The Vanderbilts, Belmonts, Brown Bros. & Co., and other wealthy New-Yorkers are stockholders; and it is expected that this development will build up one of the great manufacturing centres of the world, and (by the easy and inexpensive transmission of electrical power generated here) will make Buffalo a huge metropolis of industrial enterprises of all varieties.

Railroads in this State, for passenger-service, were inaugurated by the route from Albany to Schenectady, which began operations in 1831. This road was followed by that

BUFFALO AND THE NIAGARA RIVER.

from Schenectady to Utica, in 1836; Auburn to Syracuse, 1838; Lockport to Niagara Falls, 1838; Utica to Syracuse, 1839; Auburn to Rochester, 1841; Schenectady to Troy, Attica to Buffalo, and the Tonawanda Road, 1842. These lines were consolidated into the New-York Central in 1853, which absorbed also the Hudson-River Railroad, built in 1851; the New-York & Harlem, chartered in 1831; and (in 1885) the New-York, West-Shore & Buffalo. The New-York railroads have 4,000 locomotives, 4,500 passenger-cars, and 150,000 freight-cars. Their earnings have exceeded $125,000,000 in a year.

ALBANY AND THE STATE CAPITOL.

Finances.—The State has a very small debt, mainly for canals and the Niagara Park, although the expenditures have been liberal. Between 1867 and 1887 the taxable property more than doubled, rising from $1,664,107,725 to $3,361,128,177, while the State tax fell from $12,647,219 to $9,075,046. During these 20 years the taxable property paid State taxes aggregating $224,000,000. It is the opinion of the comptroller that over $2,500,000,000 more, mostly in personal property, should be taxed. In that case the valuation of New York would exceed $6,000,000,000. In 1812 the State contained 20 banks, with an authorized capital of $19,000,000; in 1836, their number reached 85, capitalized at $31,000,000; in 1856, there were 303, with $96,000,000 in capital. The present number is 411, with a capital of $104,000,000, and loans and deposits each amounting to nearly $500,000,000. In addition, over $600,000,000 are deposited in the savings-banks of the State.

New-York City is the financial centre and arbiter of the United States, and controls the monetary markets of the Republic with absolute mastery. The massing of such incalculable sums in the vicinity of Wall Street, the congregating of the brightest of American financiers in the magnet-like metropolis, and the action and reaction of such resources and such genius upon the country at large, has made New York the financial capital.

The Clearing-House of New-York City is a building on Pine Street, where each of the 88 associated banks exchange daily the checks and bills received from all the other banks for the checks and bills of its own held by the other banks. If the balance is against it, the debit bank sends cash to the Clearing-House to balance, and this gold or legal tender is given out to the credit banks. The transactions of this colossal exchange have run up close to $300,000,000 in a day. The volume of operations far transcends that of all the rest of the Union, and has exceeded $50,000,000,000 in a single year, or over fifty times the amount of the National debt.

NEWBURGH AND THE HUDSON RIVER.

The Stock Exchange occupies a marble building on Wall Street. It has 1,100 members, who

assemble in the main hall daily for the purchase and sale of securities, stocks and bonds, millions of dollars' worth of which change hands daily. From the visitors' gallery, the "bulls" and "bears" may be seen and heard in continual conflict, advancing or depressing the prices of stocks, amid prodigious noise and excitement.

NEW YORK: THE COTTON EXCHANGE.

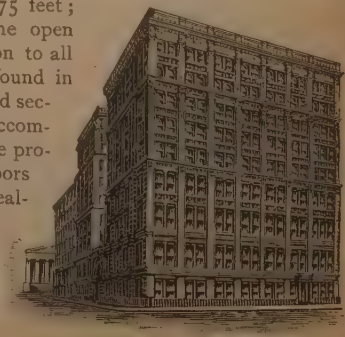
The Consolidated Stock and Petroleum Exchange occupies a handsome modern building extending from Broadway to New Street. It began operations in 1875, as the New-York Mining-Stock Exchange. Here are sold on an average more than 75,000 shares of stock daily. There are 2,400 members. The transactions in railroad bonds are heavy, and the sales of petroleum reach 2,500,000,000 barrels a year. The Produce Exchange has a magnificent building on Bowling Green, with a clock-tower 200 feet high. The Cotton Exchange has a million-dollar building on Hanover Square.

The U.-S. Sub-Treasury, a handsome white granite building, in the style of an ancient Greek temple, with ponderous Doric porticoes, stands amid the great banking houses on Wall Street. The front is adorned with Ward's noble statue of Washington taking the oath of office as President, an event which occurred on this exact site.

NEW YORK: THE PRODUCE EXCHANGE.

The U.-S. Assay Office, adjoining the Sub-Treasury, occupies the building constructed in 1823 for the Branch Bank of the United States, and now the oldest edifice on Wall Street. From $20,000,000 to $100,000,000 in crude bullion are received here every year, to be assayed, refined, separated and cast into bars, which are piled up in the vaults in glittering heaps of yellow gold and white silver.

Architecturally and in other respects the Mills Building is a notable structure. D. O. Mills went to California in '49, and afterwards became well known in the banking business in Sacramento, and in the public life of the State and the Nation. He has been known in Wall Street for almost 40 years, and it has been variously estimated that he is worth from $10,000,000 to $20,000,000. The Mills Building was erected in 1881–2. It is ten stories in height, and contains nearly five acres of floor surface, divided into 300 offices. The dimensions of the lot upon which it stands are as follows: on Wall Street, 28 feet 11 inches; on Broad Street, 175 feet; Exchange Place, 150 feet. The arrangement of the open court on Broad Street gives direct light and ventilation to all the offices, leaving no dark corners, such as are found in other mammoth buildings. The basement and first and second stories are of large dimensions, designed for the accommodation of railroad companies and bankers; and are provided with massive burglar-proof safes. On the floors above, the offices are of sizes appropriate for lawyers, real-estate agents and the like. The façades are of Belleville stone and Philadelphia brick, and the enriched panels are either carved in this stone or moulded in red terra-cotta. The absence of pillars to support the floors is a peculiarity of the structure, adding much to the convenience and beauty of apartments in it.



NEW YORK: THE MILLS BUILDING.

NEW YORK: CHEMICAL NAT. BANK.

The Chemical Bank was founded in New York more than 60 years ago, its originators having been connected with that branch of business which gives it its name. In many respects this is one of the most remarkable financial institutions in the world, and the largest and most famous bank in America. Amid the great panics which have from time to time swept over the country, the Chemical Bank has stood firm, without embarrassment or suspension. For this reason, on the resumption of prosperity, great numbers of accounts were transferred to this bank, resulting in an increasing volume of profits. The astonishing appreciation of its conduct and policy is seen in the fact that the Chemical stock based on a par value of $100 (though actually $25) sells for $4,600 a share. The directorate includes some of the foremost men in New-York City. The Chemical National Bank has a capital of $300,000, with a surplus fund of $6,000,000, undivided profits of nearly $300,000, and resources amounting to $35,000,000, including over $7,000,000 in specie.

The buildings are modest and unobtrusive, although commodious structures, extending from Broadway around to Chambers Street, and fully indicate the silent yet powerful financial institution whose ramifications extend throughout the world.

The widely-known First National Bank of New York was organized in July, 1863, and immediately took an active part in placing the United-States Government loans. In all subsequent Government loans it has been prominently identified, and in 1879, during the funding operation of that year the sales of United-States bonds aggregated nearly $500,000,000, and its deposits, including those of the United-States Treasurer, amounted to about $200,000,000. Its special line of effort from the first, however, has been devoted to acting as reserve agent for and receiving deposits of out-of-town banks, which have reached a sum larger than that of any other institution. The bank pays 100 per cent. per annum in regular quarterly dividends, and has accumulated a greater surplus and undivided profits ($6,702,843), than any other bank in the United States. It is an undivided half owner of the United Bank Building, at the corner of Wall Street and Broadway, said to be the most valuable site in this country.

NEW YORK: UNITED BANK BLG.
FIRST NATIONAL BANK.
NATIONAL BANK OF THE REPUBLIC.

The National Bank of the Republic has had an existence of nearly 40 years. It purchased the corner of Wall Street and Broadway, the most valuable ground in North America, in February, 1851, for $110,000. It now owns an undivided one half in "The United Bank Building," erected in 1880, on that ground and two adjoining lots, the book value of which is $637,000, and the market value over $1,000,000. Prior to the Civil War, this was the leading State bank in Southern business, and in 1865 it changed to a National bank. Its standing and character are well established, and it is a depository of the United States. The recent increase in its volume of business is unparalleled. On May 1, 1884, John Jay Knox, after 22 years of government service, and twelve years as Comptroller of the Currency, accepted the presidency. The net deposits were then $4,378,671; the discounts, $3,359,523; the surplus and profits, $668,335. During the last six years, there has been an increase of $8,577,100 in deposits, $5,654,125 in loans, and $256,978 in surplus and profits, after the payment of the eight per cent. regular dividends. The stock which sold for 112 now readily commands 190 in the market. The directory is composed of a careful body of experienced men, of large means and influence; and the cashier, E. H. Pullen, has been 30 years in the bank. Its capital and aggregate profits are nearly $2,500,000; its deposits $15,600,000, and its resources $18,000,000.

NEW YORK: NATIONAL PARK BANK.

The National Park Bank of New York is famous for its enormous number of accounts with banks and bankers throughout the United States (and especially in the South), in which regard it probably stands at the head. The business thus entailed requires the attention of more than 100 clerks. The Park Bank was organized in 1856, and became a National bank in 1865. Three years later, it moved into the magnificent marble edifice which it had built for itself, on the site of Barnum's Museum, and in the heart of the busiest part of New York. The banking-rooms are not excelled by any in the city; and below them are invincible safe-deposit vaults, provided with every convenience for the use of customers. The capital-stock of the National Park Bank is $2,000,000, with a surplus of $2,400,000. The average deposits amount to $27,000,000. The dividends amount to ten per cent. yearly; and the stock sells for $336 a share. Ebenezer K. Wright is President; Jas. H. Parker, Vice-President; and George S. Hickok, Cashier.

The Bank of America rose on the ruins of the old Bank of the United States, several of whose directors became its active promoters, intending to attract to it much of the capital and business of the dying corporation, and thus make it what its name implies. In 1812 the Bank of America received a charter, providing for a capital stock of $6,000,000, and requiring it to pay the State $600,000 and to loan it $2,000,000. Oliver Wolcott, ex-secretary of the United-States Treasury, was the first president, and the directorate included 18 of the foremost citizens of New York. The war of 1812, the multiplication of banks, and the inflation and depreciation of the currency prevented the full success of the enterprise, and its capital was reduced to $2,000,000. The bank was reorganized under the General Banking Act of 1838, and for many years served as the local depository of the National funds. From 1857 until the old building was removed it was the depository for gold coin for the associated banks, issuing certificates payable in coin, and having at times upwards of $47,000,000 in gold in its charge. The home of the Bank of America was a quaint and massive structure in Egyptian architecture, dating from the year 1835. On the same site now stands the lofty and magnificent new granite building, erected in 1888–9 for the home of this great financial corporation. The capital of the bank is $3,000,000, with a surplus and undivided profits of $2,000,000.

NEW YORK: BANK OF AMERICA.

NEW YORK: FOURTH NATIONAL BANK.

The Fourth National Bank of the City of New York was organized in January, 1864, being the fourth New-York bank organized under the provisions of the National Bank Act of 1863. The movement to create the bank was initiated by many leading citizens of New York, and its first president was the Hon. George Opdyke, who had just completed his term of office as Mayor of the city. The bank in 1888 secured as president J. Edward Simmons, who having held various positions of trust and responsibility was fitted by experience as well as by business capacity to preside over the fortunes of such an institution. The Vice-President is James G. Cannon, and the Cashier is Charles H. Patterson. The capital-stock is

$3,200,000, and the surplus and undivided profits amount to $1,700,000. The deposits average $20,000,000, and the loans and discounts $18,000,000. The business of the Fourth National Bank extends to every section of the country, and it has correspondents at all principal points.

NEW YORK: HANOVER NATIONAL BANK.

The Hanover National Bank, of New York, received its charter in 1851, and began business in Hanover Square, whence it moved to 33 Nassau Street, and in 1877 to its present home on Nassau and Pine Streets. By judicious activity in conservative channels it has been able to pay over $2,000,000 in dividends, besides accumulating a surplus of over $1,500,000. These represent an aggregate yield of more than ten per cent. on the stock. The market value of the stock is $350 per share of $100 par value. The Hanover is proverbially rich in cash resources, and it is not unusual to see it with 40 per cent. of its deposits on hand in money. The present deposit amounts to nearly $18,000,000, and is continually growing. The Hanover has a large correspondence with outside banks, and a valuable and excellently conducted foreign-exchange business; and serves as a United-States depositary, having had a creditable share in upholding and advancing the credit of the Republic.

BUFFALO: BANK OF BUFFALO.

One of the foremost of the financial institutions of the State outside of New-York City is the Bank of Buffalo, with a capital of $300,000, and a surplus of the same amount. Sharing in and advancing the development of Buffalo, as it has grown from the place of a small lake-port to that of one of the twelve great cities of the United States, this bank has achieved an unprecedented prosperity, without departing from the safe lines of commercial policy, and holds deposits of above $4,000,000. Under the direction of President S. S. Jewett and Cashier Wm. C. Cornwell, and a strong board of directors, the bank has carried out many advanced ideas in financiering, while retaining the conservative principle that a substantial percentage of its deposits should be carried in cash or quick assets. Although founded as recently as 1873, this institution has revolutionized the banking business in Buffalo, and its counting-room is visited daily by the leading business men of the city.

NEW YORK: UNITED-STATES TRUST CO.

The Trust Companies are of paramount interest in New-York financial circles. They act as legal depositories for moneys paid into court, and for the funds of executors and administrators, as the trustees of estates, and in various other capacities. The greatest of these institutions in all this country is the United-States Trust Company, of New York, a strong and conservative corporation of many years' standing, trustee and guardian of many important estates and depository of trust funds. Its capital ($2,000,000), together with its surplus ($7,500,000), reaches the colossal sum of $9,500,000; its deposits are about $36,500,000, and its gross assets $47,000,000. In the concentration of National wealth at New York, there are many great estates and corporations with investible funds, which find their best disposition in the control of such an institution as this, whose officers are always vigilant for the security of the great trusts com-

NEW YORK:
CENTRAL TRUST CO.

mitted to their charge. The building of the United-States Trust Company on Wall Street is a noble specimen of architecture, erected at a cost of over $1,000,000. The banking rooms have an air of simple grandeur, rarely seen in a place of business.

The Central Trust Company of New York is under the presidency of Frederick P. Olcott. Its advance among the famous fiduciary interests of the metropolis shows an unusual reward for foresight and enterprise, and has a record unequalled in its way on this continent. The capital stock is $1,000,000, and on this amount, between January, 1890, and March, 1891, the company declared bi-monthly dividends of five per cent., besides adding $420,000 to surplus account. Thus the business of 14 months shows a profit nearly equal to the invested capital. The surplus in 1884 was $1,500,000, and in the seven years intervening over $3,000,000 more has been added to this surplus, although in the meantime the company has paid dividends averaging 21½ per cent. a year. The Central Trust Company is a regular modern trust company. It allows interest on deposits; is a legal depository for money paid into court; is authorized to act as executor, administrator, guardian, or in any other position of trust; also as registrar or transfer agent of stocks and bonds, and as trustee for railroad and other mortgages. Its building is one of the notable structures on Wall Street. Its capital and surplus is about $5,500,000, and its gross assets about $32,000,000.

NEW YORK:
EQUITABLE MORTGAGE CO.

The Equitable Mortgage Company under the presidency of Charles N. Fowler has developed to a financial institution of considerable magnitude. It was founded under the laws of Missouri, and has its headquarters in the *Evening-Post* Building, New York, with offices in Philadelphia, Boston, London and Berlin. The capital is now $4,000,000. The surplus and undivided profits amount to $1,800,000, and the gross assets are over $14,000,000. The company issues debentures, and deals in Government, State, county, city, school, water and railroad bonds. A prominent and interesting field of effort is in loans on farm-mortgages in the West and South, made through the local banks as loaning agents, thus securing agents familiar with the credit and character of the borrowers. The company also guards its interests by employing skillful attorneys and salaried expert valuers in the regions covered by its systems. In 1890 a committee of eight European and seven Eastern capitalists traveled over the United States to examine the Equitable's securities and systems, and pronounced this verdict: "The mortgage system of the Equitable Company is skillfully devised and well adapted to secure a safe and prosperous business."

NEW YORK:
THE BRADSTREET CO.

Merchants and manufacturers have the opportunity of extending their trade to a degree limited only by their power to produce and their ability to determine the needs of consumers. Commerce — always conservative — follows the lines of knowledge, and advances with the definite determination of facts. The work of The Bradstreet Company is recognized as one of the most potential in gathering, formulating and disseminating the information necessary for the broadest development and the widest extension of all commercial or mercantile pursuits, for it has always kept pace with, and even anticipated, the actual advancement,

by its investigation of the material progress and prospects of the world's products, as also its careful consideration of the specific details of the responsibility and character so necessary to the proper estimate of individual credit. The massive quarto volumes of more than 2,200 pages contain the estimated worth and recognized credit, classified business, and address of more than a million of subjects, besides much other valuable information. Its offices nearly compass the earth. That its mighty mission has been fulfilled with fidelity as to facts, conservatism as to judgment, conscientiousness as to details, is proven by a record which challenges the attention and commands the respect of every person who has sought information through its channels or availed himself of its facilities for the investigation of personal credits. The Bradstreet Company is the oldest and financially the strongest organization of its kind; working in the one interest and under one management, with wider ramifications, with greater investment of capital, and expending more money every year for the collection and dissemination of information than any similar institution in the world. It has long been recognized and practically endorsed by the highest local courts in the United States, and a constantly increasing business justifies the statement that the aid and protection afforded by this institution are becoming better understood, and the value of the information more fully appreciated. This company issues, under the name of *Bradstreet's*, the foremost commercial and financial newspaper of this continent; a sixteen-page weekly, giving the condition of the crops, the markets, and the news of commerce, finance and manufactures, as well as discussions on all kindred topics, the whole contents being absolutely unbiased and unbought. This newspaper is quoted the world over as the standard authority in its particular work, and its subscription list is an index of the most prominent business houses of this and other countries. Bradstreet's bindery, in its high-class work, fairly ranks with the most famous of Paris and London. For quality of workmanship and delicacy of finish it has few competers and no superiors. The Bradstreet Company has been an important factor in the mercantile world for more than forty years, but its preëminent career began in 1876, with its present administration, under the presidency of Charles F. Clark.

NEW YORK: THE CITY HALL.

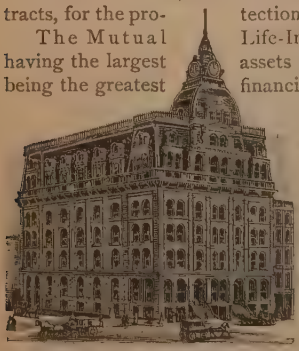
Life-Insurance. — No better evidence of the Christian civilization of the American people can be found than in the record of their life-insurance companies. Every State, county, city, yes, even hamlets, have their poor-houses, their "homes," and their charitable institutions to take care of those who have been improvident or unfortunate. But the noble spirit which urges every man to provide as far as he can against all emergencies for his own family, and for those who depend on him, is shown by the fact that this country has a long list of life-insurance organizations, which are doing on business principles the greatest amount of philanthropic service. There are various organizations bearing the name of life-insurance companies, but only those carrying out the approved system of sound life-insurance are worthy of unlimited commendation. There are about a dozen of these in New York, and three of them, the Mutual Life, the Equitable Life, and the New-York Life, after paying out fabulous sums to widows and orphans and to holders of matured policies, have accumulated a grand total of $382,000,000, as security for the policies now in force upon the lives of men who are thus mindful of the care of their families.

Over $8,600,000,000 in life-insurance (covering 4,000,000 policies) is in force in the United States, the yearly premiums reaching about $165,000,000, and the yearly payments to policy-holders $90,000,000. These receipts and payments are much greater than those of all

the companies in all other parts of the world united. The regular life-insurance companies (excluding assessment societies) have already paid to their policy-holders and their families the colossal sum of $1,500,000,000, and yet hold in their coffers securities amounting to a sum of $25,000,000 in excess of the combined banking capital of the United States.

Chauncey M. Depew recently said that the preëminence of the United States among the nations of the world "is most conspicuous in the number, solvency and assets of the institutions where the mites of the poor constitute a fund for a rainy day and for the inevitable accidents of life, and of those where the accumulations of the prosperous and rich provide against the losses of fortune and death." The silver-tongued orator also added: "If a man knows, while earning enough for the support of his family, that by some process that family will be sustained and supported when he is dead, by a policy given by a good company upon a moderate premium, for a sum beyond anything which he could hope to accumulate under ordinary conditions, that man will cease to worry, and will live forever." Among the enormous corporations raised up to accomplish this end, and also to provide inalienable life-annuities, invested by the wisest financiers, and safeguarded by governmental supervision, the three great metropolitan companies, the New-York Life, the Equitable, and the Mutual Life, stand preëminent, with unblemished records and almost unlimited resources, held and disbursed in accordance with public law and individual contracts, for the protection and enrichment of their members.

The Mutual Life-Insurance Co., of New York, enjoys the noble distinction of having the largest assets of any life-insurance company in the world, and also of being the greatest financial institution, even much larger than the Bank of England. Its assets amount to about $150,000,000, the yearly income being $35,000,000, and the yearly disbursements exceeding $24,000,000. There are 206,055 policies in force, insuring $638,226,865. The new business secured in a single year has exceeded $160,000,000. This corporation was among the first to do business as a modern life-insurance company, having been founded in 1843; and its growth has been steady, secure and beneficent ever since. The executive offices of the Mutual Life occupy one of the most admirable and exquisite structures in the world, at Nassau, Cedar and Liberty Streets, on the site of the old Post Office. The New-York general agency uses another immense structure, also the property of the company, at Broadway and Liberty Street. The Mutual Life is more than continental in its workings, and has its well-appointed agencies in all parts of the United States, Canada, Mexico, Great Britain and Continental Europe; and issues all the approved forms of life, endowment, annuity, and other policies. The Mutual Life for about 40 years was under the presidency of the late Frederick S. Winston, and at his death, Richard A. McCurdy, the former Vice-President, was chosen President, and under his administration the Mutual Life has become greater than ever before. This is one of those gigantic institutions about which it is impossible even to suggest its enormous operations, or to indicate its incalculable value to the whole people. Although it is officered by those selected by its policy-holders, it is nevertheless a semi-public institution, with its field of operations all over the civilized world. It is an enormous trusteeship for the welfare of the individuals and their families, who in time of strength and prosperity provide for old age and adversity.



NEW YORK: MUTUAL LIFE-INSURANCE CO., NEW-YORK GENERAL AGENCY.

NEW YORK: MUTUAL LIFE-INSURANCE CO., EXECUTIVE OFFICES.

The Equitable Life Assurance Society of the United States stands in the front of all life-insurance corporations of the world. It is the largest life-insurance company in the world in the amount of its annual business and of its insurance in force, the latter being over $700,000,000, covering nearly 200,000 policies. Its gross assets exceed $115,000,000. The new business in 1890 was over $200,000,000, being larger than that of any other company in the world. The Equitable also holds the largest surplus. The policies offered by the Equitable include a variety of forms, tontines, indemnity bonds, annuities and others. The society was organized in 1859. Henry B. Hyde is the President, and James W. Alexander is the Vice-President. It has paid to policy-holders the enormous sum of over $140,000,000, one half of which was to widows and orphans. The Equitable Society has done much to liberalize the policy contract, and to make insurance popular. By the invention of the tontine system, it has revolutionized the practice of life-insurance. Under this system, those policy-holders who survive a certain period receive large cash returns, while the families of those who die early receive the insurance money as soon as satisfactory evidence of the death of the policy-holder is submitted. Many of these tontine policies maturing in 1891 show, in addition to the 20 years of protection furnished, a return of all premiums paid, with a fair rate of interest added. The Equitable Building, erected by the Society in 1872, has been recently enlarged and contains the main offices. It is one of the largest and most substantial commercial buildings in the world. It fills the block on Broadway, from Cedar Street to Pine Street, containing rented offices, occupied by over 1,500 people. The Broadway entrance leads into the finest rotunda in America, on whose pavements stand marble columns with onyx capitals, upholding an entablature of red granite and an arched roof of stained glass. The view from the roof of the building includes the entire city and suburbs. The offices of the Society (second floor) are perhaps the costliest and grandest of any used for business purposes in this or any other country. This was the first office-building to introduce passenger-elevators, and to the managers of the Equitable the owners of buildings owe a debt of gratitude for adopting a practical means of making the upper floors desirable at high rentals. The Equitable Building is one of the attractions of New-York City to which all strangers are taken, to admire its architectural grandeur and the magnificent view from the roof.

NEW YORK: EQUITABLE LIFE-ASSURANCE SOCIETY.

The New-York Life-Insurance Company, of which William H. Beers is President, ranks on an equal footing with the foremost life-insurance corporations of the world, and is one of the dozen greatest financial and fiduciary institutions. It has over 173,000 policies in force, insuring over $569,000,000. The company began business in 1845; and since that date has paid over $56,000,000 in death claims, and over $86,000,000 in endowments, annuities, dividends and surrender values. The interest and rents received have exceeded the entire losses by death, a result which shows an adequate accumulation of assets, handled with masterly financial skill and a careful selection of risks. The New-York Life is purely mutual in its operations, and the profits are divided among its policy-holders exclusively. The assets amount to over $115,000,000. This vigorous and progressive company originated non-forfeiture and mortuary dividend policies, and issues a greater variety of contracts than any

NEW YORK: NEW-YORK LIFE-INSURANCE CO., HOME OFFICE.

other company. It was for many years the only company to issue policies without a suicide clause. Its endowment business is larger than that of any other company, and its annuity business is larger than that of all other American companies combined. It owns large fire-proof office-buildings in New York, Kansas City, Omaha, Minneapolis and St. Paul, and several outside of the United States.

NEW YORK: LIVERPOOL AND LONDON AND GLOBE INSURANCE CO.

The Fire-Insurance interests of the United States have challenged the closest attention and best efforts of several powerful foreign corporations, preëminent among which is the Liverpool and London and Globe Insurance Company, said to be the largest fire-insurance company in the world. This institution was founded at Liverpool in 1836, as the Liverpool Insurance Company; acknowledged its success at the British metropolis, by taking the title of the Liverpool and London Insurance Co., in 1848; and 16 years later augmented the title again, upon acquiring the business of the Globe Insurance Company. An agency was founded in the United States in 1851, and the same year the first board of directors was formed at New York. Since that time, the American business has advanced until its net fire premiums exceed $4,000,000 a year. In the Chicago and Boston fires of 1871 and 1872 the company lost $4,670,000, and its abundant American resources were not merely maintained but largely supplemented by English funds, so that all losses were promptly paid in full. These ample means in both hemispheres give greater security to the policy-holders of the Liverpool and London and Globe, whose United-States branch after paying over $48,000,000 in fire-losses now has a surplus of above $3,000,000. The Liverpool and London and Globe building in New York is one of the finest of those superb office edifices for which lower New York is famous, and although built some years ago, it stands in the front rank to-day.

NEW YORK: CONTINENTAL INSURANCE CO.

In fire-insurance one of the most notable corporations is the Continental Insurance Company, of New York, which dates its origin from the year 1853, when it started with the largest capital ($500,000) of any fire-insurance company at that time. The subscriptions to its stock poured in so freely that out of the overplus was organized the Home Insurance Company. The Continental has been a progressive company, and the late George T. Hope, the president for more than 30 years, was one of the foremost underwriters of his day. The paid-up cash capital is $1,000,000, and the available cash assets reach nearly $6,000,000, including a net surplus of $1,600,000, in addition to the reserve fund for insurance in force of $2,500,000. The gross income is about $2,500,000 a year, which largely exceeds the expenditures for all purposes. The sums paid for fire-losses amount to over $25,000,000, $2,000,000 having been paid for losses by the Chicago fire of 1871, without impairing its capital, and $500,000 for the Boston fire of 1872. F. C. Moore is the President, and Cyrus Peck is the Vice-President and Secretary.

A great sea-port like New York naturally has many companies for insuring vessels and their cargoes. The largest and strongest and most successful marine insurance company in the United States is the Atlantic Mutual Insurance Company of New York, which was incorporated in 1842, and now has assets of above $12,500,000, for the security of its policies. These amazing figures may be extended by the statement that the marine premiums amount to over $5,000,000 a year. The profits of the company revert to the insured, and are divided yearly upon the premiums terminated during the year, thereby

NEW YORK: ATLANTIC MUTUAL INSURANCE CO.

reducing the cost of insurance, the company being, as the name indicates, for the mutual benefit of its policy-holders. These dividends are paid in interest-bearing certificates, known as "Scrip," which are in time redeemed by the company. Provision is made for issuing policies making the losses payable in England. The Atlantic Mutual owns its office buildings, on Wall Street, at the corner of William Street. John D. Jones, its President, has been identified with the company since it began business.

Railroads. — The New-York Central & Hudson-River Railroad is one of the grandest routes of the world, and over its magnificent quadruple tracks passes a large proportion of the freight and passenger traffic between New York and New England and the West. Its Grand Central Station in New York is an enormous structure of brick, iron and glass, located in the very center of the city. Here come and depart the thronging trains of the routes from New England, as well as the vast passenger traffic of the Vanderbilt lines. It is the only railway passenger station on Manhattan Island. The New-York Central trains traverse the garden of the Empire State, rich in agricultural and industrial resources, and teeming with busy cities and attractive villages. For 140 miles they follow the beautiful Hudson River, through one of the finest scenic regions in the world, and beyond Albany they ascend the historic Mohawk Valley, and pass on to and through the interesting cities of Schenectady, Utica, Rome, Syracuse, and Rochester, to Buffalo and Niagara Falls, reaching the latter either via Lockport or Buffalo. The famous "New-York & Chicago Limited," "North Shore Limited," and "Southwestern Limited" trains, running over this route, are probably the most magnificent and complete railway trains in the world, and give the quickest and most comfortable transit between New York and Boston, on the one side, and the great cities of the interior and Western States on the other. The New-York Central is the only railroad in the world with four tracks, forming an unrivalled steel highway between the East and the West. The Michigan Central line connects with the New-York Central at Buffalo, and the great through trains pass from one system to the other, and across into Canada, with a magnificent prospect of Niagara Falls from Falls-View station. Flying across the wide Ontario plains, and Southern Michigan, the trains enter Chicago.

NEW YORK: GRAND CENTRAL STATION.

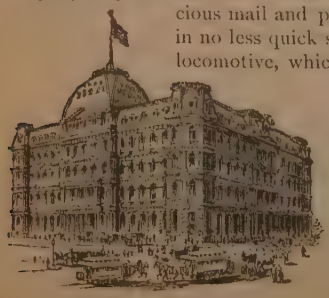
The New York, Lake-Erie & Western Railroad runs from the metropolis northwest through the southern tier of counties to Buffalo, 422 miles, connecting for the West. The Delaware & Hudson Canal Company's Railroads run northeast from Binghamton to Albany, Lake Champlain and Montreal. The Rome, Watertown & Ogdensburg Railroad follows the Lake-Ontario shores. There are many north and south and other lines.

A favorite route from New-York City to the eastward, to Boston, to Providence, and to the White Mountains and other pleasure-resorts and cities of Massachusetts, New Hampshire and Maine, is by the Providence & Stonington Steamboat Company. These magnificent vessels are among the staunchest, swiftest and most luxurious steamers in the world,

and are of enormous size. The fleet includes the first-class steamships, *Massachusetts*, *Connecticut*, *Rhode Island*, *Stonington* and *Narragansett*, forming two lines eastward from New York, each with a boat leaving at late afternoon, the Stonington Line making connections with the Shore Line Railway, for Boston at Stonington, very early in the morning, while the Providence Line boat runs close to Block Island, and, avoiding the rough sea at Point Judith, ascends the whole length of Narragansett Bay to Providence, where it connects with the railways for Boston and all other New-England points. As these steamships pass majestically around New York and Brooklyn, by the deep and crowded rivers, they reveal a wonderful panorama of civic and maritime power and dignity; and they sweep through Hell Gate, and out into Long-Island Sound, as evening comes down, and the lighthouses begin to twinkle. The "Providence Line" sails from Pier 29 (old number), and the "Stonington Line" from Pier 36, both in the North River.

LONG-ISLAND SOUND: PROVIDENCE AND STONINGTON LINE.

In March, 1852, Henry Wells, William G. Fargo, and others organized in New-York City, under the laws of the State of New York, Wells, Fargo & Company, to transact an Express, Exchange and Banking business, particularly on the Pacific Coast, but also between San Francisco, New York and Europe. The company sprang into existence, Minerva-like, fully equipped for service; and at once engaged upon its long mission of trust and responsibility, ever since maintaining itself successfully amidst some of the most trying vicissitudes; extending its lines farther and farther, over the mountains, across deserts and plains, and along inland water-ways, until it spans the broad continent, extending throughout forty-one States and Territories within the United States and Mexico, as well as reaching Great Britain and Continental Europe. In 1888 it acquired the Erie System, centering in New York, and extensive auxiliary lines, thus securing its own direct through lines to New York, Boston, and all other large commercial centres, and where it is now prominently represented. The company operates 40,000 miles of lines by railway, stage and steamer; has 2,720 agencies and about 6,000 employés; transacts millions of business annually in its Express Department; and handles, in its Banking Department, its accumulated capital and deposits, amounting to $10,000,000. The main office of the company in New-York City is at 63 Broadway, but its headquarters proper, or General Accounting Office, is in San Francisco. It was Wells, Fargo & Company that originated, in 1860, the famous Pony Express, for the most rapid conveyance then possible of important mail correspondence, across the continent. The success of the undertaking demonstrated its practicability, and suggested other possibilities of accommodating the needs of the age. The narrow trail of the pony may be said to have marked out the course soon afterwards followed by the capacious mail and passenger coaches, along with the telegraph-wires; and in no less quick succession, that of the railroad-track and swift-speeding locomotive, which now unite in one bond of fraternal intercourse the widely separated extremities of the continent. The Express Building, in San Francisco, is one of the marked architectural features of that city, its massive exterior covering two thirds of a block. The interior arrangements are models for comfort and convenience; and it is probably the largest and best appointed express office of the world.



NEW YORK: POST-OFFICE.

Hotels. — The noble white-marble pile of the Fifth-Avenue Hotel, in rich Corinthian architecture, covering 18 city-lots, and accommodating 1,000 guests,

NEW YORK: FIFTH-AVENUE HOTEL AND MADISON SQUARE.

marks a place in the heart of New-York City, and an era in the history of the Nation's wealth and advancement. It is located in the centre of the city, upon the charming Madison Square, and at the intersection of Broadway and Fifth Avenue, and convenient to the most important points of interest in the metropolis. Its patrons include the most prominent men and women in America: The Presidents; hundreds of Government officials, Senators, Congressmen, Judges, Army and Navy officers, divines, physicians, authors, and in fact all who have attained prominence in public and private life, both at home and abroad, and the most distinguished Europeans of rank and title who have visited this country. It has been the centre of the great public occasions which the city has witnessed for thirty years. Years have come and gone, new hotels have multiplied, with innovations introduced to affect and influence patronage, but the Fifth-Avenue is as new and fresh as the most recent hotels, and with more liberal accommodations than any of them, and its well-earned reputation, as the leading hotel of the world, is assured.

New York is the metropolitan city of the greatest nation of travellers that the world has ever seen, and it is natural that it should be richly endowed with public accommodations for its myriads of transient guests. Prominent among these homes of the voyagers is the magnificent Gilsey House, whose white marble walls rise above the surrounding buildings, at the corner of Broadway and 29th Streets, close to the up-town theatres, and within a square of the elevated railroad, by whose aid people can quickly and easily reach any part of the city. This house dates from about the year 1876, but has been added to at various times, and has always been a favorite resort for the travelling public. It is kept on the European plan. Not only is it a thoroughly appointed modern hotel in every sense of the word, but it is handsomely furnished, and kept up in most creditable style. Its restaurant is famous all over the world as unsurpassed in this country. The senior proprietor is James H. Breslin, one of the universally known hotel-kings of America, who occupies also the responsible position of President of the Hotel-Men's Benefit Association. He is also the senior landlord of the wonderful Auditorium Hotel at Chicago.

NEW YORK: GILSEY HOUSE.

In some respects the Niagara Hotel, at Buffalo, stands without a rival. Planned, built and owned by George H. Lewis (of the well-known coal-mining firm of Bell, Lewis & Yates), a gentleman of great wealth and wide travel, it has many of the delightful attributes of a refined and beautiful home, unusual in the public houses of our Republic. The main hall, or reception-room, is furnished and decorated in exquisite taste, with easy chairs, Oriental rugs and works of art, with the office alcoved in one side, and on another a great tropical conservatory of palms and cacti, with fountains, birds and music. The beautiful parlors, the comfortable guest-chambers, and all other parts of the house are in the same key of quiet luxury, and are provided with all devices for sanitation, abundant water and scientific ventilation, and automatic fire-alarms.

BUFFALO: NIAGARA HOTEL.

The Niagara stands in a situation of unusual beauty, on the crest of Prospect Hill, close to the umbrageous parks which border Niagara Street, and within a few steps of the street-cars. From the windows, and from the adjacent park, in front of Fort Porter, the view includes the soft blue Chautauqua hills, the rural Canadian shores, the shining plain of Lake Erie, and the resistless current of the Niagara River. In summer, the house is cool and airy; in winter, its beautiful palm-gardens preserve the temperature of the Bahamas. Besides being the home of many well-to-do families, the Niagara is a favorite stopping place for the best class of travellers, for it affords them the most admirable opportunities for quiet rest, and is easily reached from the centre of the city. The manager is Charles A. Dunn.

In the beautiful and salubrious hill-country of Western New York, and amid the Tyrolese scenery of Dansville, stands one of the notable institutions of America, the Jackson Sanatorium, founded in 1858 by Dr. James C. Jackson, for the scientific care of chronic invalids, and for a place where overworked and nervous men and women could find rest and recuperation. The high Dansville region is entirely free from malaria, and has an exceptionally dry and pure air, perfumed from vast evergreen forests, with cool summer-nights, and singularly mild and almost snowless winters. This favorable climate has given the adjacent Genesee Valley its fame as a rich fruit and grain country. The Sanatorium is supplied, from lofty rocky heights, with the purest of water, of great efficacy in curing many diseases. The regularity, quietude and comfort of the life here, re-enforced in some cases by thermo-electric and electric, Turkish and Russian baths, massage and inunction, and other restorative agencies, have brought back health to many an invalid, and far prolonged the lives of many incurables. From the handsomely illustrated pamphlets issued by the manager, J. Arthur Jackson, M. D., it is learned that the Sanatorium includes a magnificent main building of brick and iron, erected in 1883, and absolutely fire-proof, with elevators and electric bells, steam heat and detached sewage system, and broad promenade piazzas. There are twelve pleasant cottages clustered about it, in a picturesque hill-side park of forty acres, 1,200 feet above the sea. The managing physicians are James H. Jackson, M. D., Kate J. Jackson, M. D., and Walter E. Gregory, M. D. J. Arthur Jackson is manager.

DANSVILLE: THE JACKSON SANATORIUM.

The Theatres of New York are numbered by hundreds, from the comfortable play-houses of the smaller cities up to the great opera-houses of New-York City, and its magnificent Madison-Square Garden, one of the wonders of the world. Among these places of amusement there are two in New-York City that hold a high place in the esteem of all people, the "Madison Square" and "Palmer's;" both under the single management of A. M. Palmer, whose career has been distinguished for ability, purpose, refinement and success. These two theatres as well as the Union-Square during Mr. Palmer's management, from 1872 to 1882, have been powerful agencies for the development of a wholesome influence of the stage and on those connected with stage life, and Mr. Palmer's record will always be referred to for its unswerving devotion to that only which is pure and elevating; the result being that his audiences represent the culture and refinement of these times. Then, too, both these theatres are notable for their

NEW YORK; PALMER'S THEATRE.

construction. The Madison-Square, when rebuilt by Steele Mackaye, was regarded as the ideal theatre of its time; having a moving double stage, to allow for the arranging of the scenery for one act while another is going on; its curtain is a work of art, in velvet, with very heavy hand embroidery; its orchestra plays just over the proscenium arch; all the workshops being outside the main structure; and here were first introduced soft tones and harmonious blendings in the finish and decorations. "Palmer's" was built by Lester Wallack, the famous light comedian and manager, one of the Wallack family who dominated the New-York stage for 40 years. He spent a great fortune to erect this theatre, which is notable for its elegance, commodiousness, and solidity. Both theatres are practically fire-proof, and have many places of exit. Mr. Palmer acquired the Madison Square in 1884, and Palmer's in 1888. In 1880 he originated the Actors' Fund, ever since being its president. It has distributed $150,000 in charities. Among the many American plays he has placed before the public two are memorable for their remarkable successes: Bronson Howard's "The Banker's Daughter," and Bartley Campbell's "My Partner."

NEW YORK: MADISON-SQUARE THEATRE.

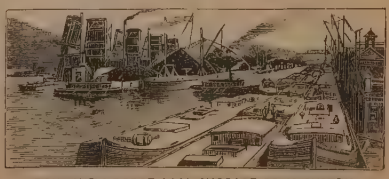
Lumber and Coal are among the commodities most largely handled in New York, and two of their chief ports, Tonawanda and Rondout, lie at opposite ends of the State.

Tonawanda, situated midway between Buffalo and Niagara Falls, ranks second only to Chicago as the greatest lumber centre in the world. Here since 1870 have grown up a score or more of firms whose huge piles of lumber cover many hundreds of acres, and whose many miles of lumber docks make a sight seen only at a few places on this continent. It is no wonder that Tonawanda has thus developed, for it is not only favorably situated for receipts and shipments by lake, canal and rail; but here was found a vast acreage of low, flat land, just suited to the most economical handling and storage of immense quantities. Here about 800,000,000 feet are received in a year. Over 150,000,000 shingles are either made or received here. In 1890 over 1,400 vessels entered the port of Tonawanda, and all the year round can be seen large fleets of many-sized and many-shaped vessels.

Of the score of Tonawanda firms engaged in the lumber industry there are several that rank among the greatest lumber concerns of the United States. For example, A. M. Dodge & Co., whose great yards at North Tonawanda are the outlets for the products of their several lumber manufacturing establishments, where their yearly output is about 150,000,000 feet, chiefly of white pine. The capital employed by this firm alone amounts to several million dollars, and its shipments of lumber are made all over the world.

TONAWANDA: A. M. DODGE & CO.

The plant erected at Rondout, by the Dodge Coal Storage Company, of Philadelphia, is the most wonderful coal-handling mechanism in America for trimming and re-loading enormous quantities of coal, by means of endless chains travelling over trussed shear-frames. This ingenious coal-handling machinery results in vast economies of money and labor.


RONDOUT: DODGE COAL STORAGE CO.'S SYSTEM.

The Newspapers of New York, and especially the great metropolitan dailies, are among the most powerful agencies in forming and directing American public opinion. Many of the brightest writers in the country are kept busy the year round in preparing the articles for these unrivalled newspapers, the libraries of the people.

NEW YORK: "THE WORLD" BUILDING.

The New-York *World* is unanimously admitted to enjoy the distinction of "America's foremost newspaper." From the time of its purchase by its present proprietor, Joseph Pulitzer, it has entirely outstripped all journalistic history in its unheard-of accomplishments, phenomenal growth, and startling innovations. From a circulation of 33,521 copies a day in 1883, *The World* has advanced by gigantic strides to 316,636 a day in 1890. Its advertising has sustained an equal ratio of increase, the records showing 7,241 advertisements per month in 1883, and 64,223 per month during 1890. *The World* was founded in 1860, as a religious daily, with large means. It did not succeed; and in 1862 was bought by S. L. M. Barlow, August Belmont, and others, and made the leading Democratic journal of America, under the editorship of Manton Marble, who, in 1869, came into possession of the entire property. In 1876, it passed into other hands, and steadily ran down until Mr. Pulitzer came from St. Louis and bought it, introducing new men, measures and methods, new purposes, policy and principles. The Pulitzer Building, the new home of *The World*, was erected in 1889-90, from designs by George S. Post, the architect of the Produce Exchange, and is a magnificent business structure, embodying the very latest and best ideas in constructive art. It is the tallest office-building in the world, and the highest structure in New York (309 feet from sidewalk to lantern; 375½ feet from foundation to the top of the flagstaff). The floors and dome are carried by a mighty skeleton of iron and steel columns and beams, to which the walls are but as clothing. This colossal and uninflammable 26-story structure lifts its impressive dome high above even the mighty buildings which stand around it, about the City-Hall Park; and contains the most perfect and best-equipped newspaper offices in the world. In the carrying to such a wonderful success his gigantic undertaking, Mr. Pulitzer has shown that it is possible for one man to be both a great editor and a great business man.

NEW YORK: "THE TIMES."

The New-York *Times*, one of the most commendable newspapers of the world, was founded in 1851, by George Jones, its present proprietor, who is the oldest and one of the most famous of New-York newspaper owners, and Henry J. Raymond, formerly Horace Greeley's assistant on the *Tribune*, and one of the most brilliant men America ever produced. The *Times* started as a one-cent four-page paper, but the price was doubled the next year, and the future of the enterprise became assured. One of the grandest of journalistic achievements was the victorious attack made by the *Times* on the Tweed ring, the plunderers of New York, all of whose members were driven into prison or exile as a result. Formerly a strong Republican paper, of late years the *Times* has been independent in politics, supporting civil-service reform and tariff reduction, fighting trusts, and generally opposing all the seemingly unworthy actions of the Republican and Democratic administrations. Its reports are accurate, concise, and readable,

and ample room is given to literature and religious news, art and science, the army and navy, agriculture and market reports, and commercial and industrial progress. The thorough appointments of the counting, editorial, composition, and press-rooms put *The Times* establishment on an equal footing with the best in the world. *The Times* occupies a magnificent 13-story building of Maine granite and Hoosier Indiana limestone, between Spruce and Nassau streets and Park Row, in the unique newspaper district of New York. *The Times* building is a most graceful office-edifice, and its simple elegance and admirable construction throughout make it one of the most notable architectural specimens of the city.

The Evening Post is very nearly as old as the century, the first number having been issued on the 16th of November, 1801. It was established by Alexander Hamilton and certain of his political friends, as an organ of the Federalists in New-York City. William Coleman, a native of Boston, and at one time the law partner of Aaron Burr, was selected as editor-in-chief, and held that position until his death, 20 years later. William Cullen Bryant became one of the editors of the paper in 1826, but did not assume full control of it until 1828. In the following year he took William Leggett into partnership, and left the latter in editorial charge when he went to Europe in the summer of 1834. He returned to America in the early part of 1836, and soon afterward Mr. Leggett retired, on account of the temporary unpopularity in which he had involved himself and the paper by his vigorous denunciations of the subjection of the Abolitionists to mob law, and his sturdy defense of the right of free speech in regard to slavery and other topics. During the administration of President Jackson *The Evening Post* was one of the strongest opponents of the United-States Bank, and also won wide recognition as an able and consistent advocate of free trade. From that day to this it has been constant in its active resistance to high protection and in its exposure of the fallacies of that theory.

NEW YORK:
"THE EVENING POST."

In the early days of Mr. Bryant's editorship the policy of the paper was Democratic, but it became Republican when the slavery extension question arose. From 1849 until 1861 John Bigelow was Mr. Bryant's partner, and acted as managing editor. Upon Mr. Bigelow's retirement his interest reverted to Isaac Henderson, who was the active business manager of the paper for many years, but had no authoritative voice with respect to its policy, which Mr. Bryant was careful to retain in his personal control. When Mr. Bryant died, his son-in-law, Parke Godwin, who had been connected with the paper in different capacities for many years, succeeded to the editorship, and retained it until the present proprietors came into possession, in 1881. Since that time *The Evening Post* has been conducted in a spirit of complete independence, under the editorship of E. L. Godkin and Horace White.

The Independent stands by general consent at the head of the religious papers of the United States, if not of the world. It was started in 1848 as an organ of the younger liberal Congregationalists, and backed by five young business men, one of whom, Henry C. Bowen, soon became its sole owner, and has continued such to the present time. Its first editors were Leonard Bacon, R. S. Storrs, Joseph P. Thompson, and Joshua Leavitt. Seven years later Henry Ward Beecher became editor, assisted by Theodore Tilton, who succeeded him after a few years. During Mr. Beecher's control the paper enlarged its scope, and was made an undenominational journal. In 1871 Mr. Tilton retired, and Mr. Bowen assumed editorial charge. Among his assistants have been Dr. Edward

NEW YORK:
"THE INDEPENDENT."

Eggleston, Dr. William Hayes Ward, Justin McCarthy, Dr. Washington Gladden, Dr. Henry K. Carroll, Prof. Borden C. Bowne, and Prof. C. H. Toy. It is the largest religious paper published, and combines the character of a literary magazine with that of a religious journal; not only discussing all current religious questions, but providing an extensive combination of literary attractions in poems, stories, and essays, by the most distinguished writers, and also giving financial, commercial, and general news and discussions. It appeals especially to thinking people, and it pays more for contributions from outside writers than any other three or four religious papers; and of necessity carries exceptional influence.

NEW YORK: "THE LEDGER."

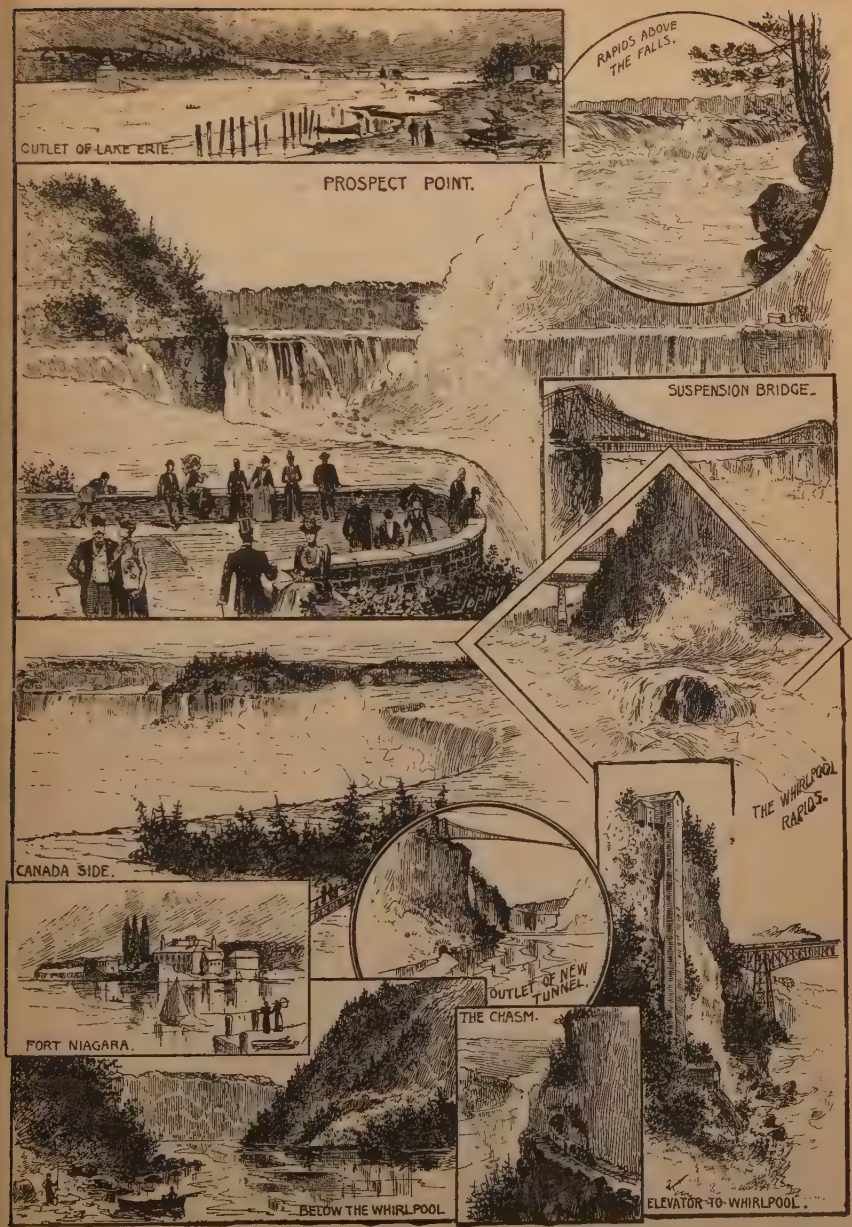
The New-York Ledger, one of the most successful of American periodicals, was founded in 1856 by Robert Bonner, the father of its present editors and proprietors. Its success was due entirely to the originality and enterprise of its founders. Nothing like it was known before, and the methods pursued in its production and distribution were equally new. The best writers were engaged, at unexampled rates of compensation, and the paper was advertised on a scale altogether without precedent. A new industry was created to distribute it to the public; and the system of news-agencies, then in its infancy, sprang up at once into its full growth. The success then initiated has been maintained. There is the same splendid liberality in procuring the best contributions from the most popular writers, and placing them in an attractive form before the public. *The Ledger* continues to be one of the best-advertised papers in the United States. Among its contributors are Mrs. Frances Hodgson Burnett, Robert Louis Stevenson, Amelia E. Barr, John G. Whittier, James Russell Lowell, Judge Albion Tourgee, Anna Katherine Green, James Parton, Herbert Ward, Harold Frederic, and Robert Grant. The present proprietors have begun to issue, in book-form, the popular works published as serials in *The Ledger*, and these form an important department in the publishing business of the firm. The house of Robert Bonner's Sons succeeded to the business of Robert Bonner, in 1887, and are the editors and proprietors of the *Ledger* and the Ledger Library.

NEW YORK: THE ASTOR LIBRARY.

The New-York *Tribune*, founded in 1841 by Horace Greeley, and conducted by Whitelaw Reid, has been for many years the beacon-star of the Republican party in the Nation, and the ideal journal of current reform. *The Sun*, Charles A. Dana's great paper, has a colossal circulation among the people of the whole country, and is the favorite paper for journalists. The New-York *Herald*, founded in 1835 by James Gordon Bennett, is especially rich in foreign news, and is regarded as a typical American newspaper, in enterprise and ability. The German-Americans are represented by the *Staats-Zeitung*; and other races by other papers. The magazines of New York, *Harper's*, *The Century*, *Scribner's* and others, enjoy enormous circulations, the world over.

NEW YORK: WALL STREET, THE SUB-TREASURY, AND TRINITY CHURCH.

The Manufactures of New York are of indescribable variety and vast extent, extending from the diamond-cutting of Tiffany and the fine book-making of the famous printing-houses, to the most gigantic achievements in heavy metal-work.



NIAGARA FALLS AND THE NIAGARA RIVER.

In the Washington Block in Buffalo is situated a typographical establishment, of unique interest to the readers of this book; for there it was made. The larger part of this spacious building, with 166 feet of frontage on each of two principal streets, is occupied by the Complete Art-Printing Works of The Matthews-Northrup Company, in connection with the BUFFALO EXPRESS, the property of the president and the treasurer of the company.

There are a few larger printing establishments than this, though it occupies over two acres of floor-space, and has a weekly pay-roll of over $5,000; but competent judges have said that for completeness in all that pertains to the typographic art it stands without a rival. Here the search for perfection has resulted in the addition of separate departments, calculated to turn out the best of work in all that pertains to printed matter, until now the establishment can carry through the production of even the most elaborately illustrated work without calling in the assistance of a sub-contractor. Perhaps the best example of this completeness is furnished by this very volume. At least twelve separate contracts might have been made for this book, and probably would have been, if the publishers had not believed that each of these contracts could best be filled by this one house. It may interest its reader to see enumerated the various branches of work used to produce it, specifying only those commonly carried on alone. 1st, Designing, or putting into art-form the special ornamental features like the cover, title-pages and illuminations; second, illustrating, or the obtaining of the original material from which the 2,500 illustrations were made; third, engraving upon wood for the production of some of these illustrations; fourth, drawing with pen and ink, and engraving in *fac-simile* for other illustrations; fifth, engraving upon wax, for the production of the maps; sixth, engraving by the direct photographic process ("phototype" or "half-tone") for the lining pages; seventh, type-setting; eighth, electrotyping; ninth, printing of the body of the work; tenth, color printing of maps and illuminations; eleventh, making the cases; twelfth, binding. Of course, so varied a plant could not often be utilized on any one work, and but few of the customers of this great establishment have ever had experience of so many of its advantages.

BUFFALO: THE MATTHEWS-NORTHRUP CO. ART-PRINTING HOUSE. "THE BUFFALO EXPRESS."

In the map department is probably found the widest distribution of customers. Mexico, Australia and England round out a list which includes most of the large publishers, and probably half the railroads in this country. In the character of printers for railroads the public is most familiar with this house, for its imprint is found far and wide upon folders, guide-books and pamphlets; but many commercial and manufacturing concerns have found that there was no better place to get a handsome catalogue, and general advertisers have taken editions of hundreds of thousands of pamphlets, because they found that the same care and skill and thought which made a large work great, would make a little work attractive.

The founder of the business was the late J. N. Matthews, who, in 1878, bought THE EXPRESS, then the skeleton of what had been an influential newspaper. Mr. Matthews was both a born journalist and a great printer. At one and the same time he started THE EXPRESS on a career which has made it one of the best-known and most influential newspapers in New-York State, and in connection with younger men founded the printing-firm of Matthews, Northrup & Company. Until his death, in 1888, he was the active head of these two businesses, and they are still managed by the men whom he trained for the purpose.

One of the best results of the intimate connection between an enterprising newspaper and a great printing and engraving house has been the BUFFALO ILLUSTRATED EXPRESS (the Sunday edition of the daily EXPRESS). Commencing in quite a small way to illustrate current local events, this paper has grown to be a splendid example of what an illustrated newspaper should be, and fills a field of more than local extent.

NEW YORK: AMERICAN BOOK CO.

In 1890 the American Book Company, the greatest school-book publishing-house in the world, came into existence, buying up the school-book lists of D. Appleton & Co., Ivison, Blakeman & Co., A. S. Barnes & Co., Van Antwerp, Bragg & Co., and Harper & Bros. The chief stockholders were formerly members of the four first-named firms, which have all retired from school-book publishing. The company has establishments at New York, Cincinnati and Chicago, and its business is of world-wide extent and immense proportions. The American Book Company has 2,000 text-books on its lists, suitable for all grades and departments, from the country primary-school to the university, and used in every part of America, besides being exported to Mexico and South America, England and the Continent, Syria and India, China and Japan, Egypt, South Africa and the Congo Free State. The consolidation of interests has resulted in a marked lowering of prices, because the books can now be made and sold much more economically. It has resulted also in the making of better books than ever before, because while each have had separately some exceptionally strong specialties, now all these strong points can be united. Then, too, the combined experience of all the great school-book makers must result beneficially for the education of the whole of the coming generations. American text-books are in advance of all others, in general excellence, and the efforts of the American Book Company will place them in a position even more commanding.

On that part of Pearl Street better known as Franklin Square — near the Brooklyn Bridge, and the New-York Post-Office and City Hall — is the Harper & Brothers' establishment, the largest and best-known publishing-house in the United States, if not in the world. Three immense buildings are fully occupied in the business. Within their walls 1,000 people are employed in the production of the Harper books and periodicals, and thousands of tons of finished printed matter of a high character go thence every year. In 1812 James and John Harper left their father's farm in Newtown, L. I., and came to New York to be apprenticed as printers. After five years they started the office of J. & J. Harper, and began printing books. James was the best pressman in town, and John an excellent compositor. The first work that bore their imprint was Locke's *Essay on the Human Understanding*, issued in 1818. Joseph Wesley Harper and Fletcher Harper, their younger brothers, after learning the same trade, entered the firm, the one in 1823, and the other in 1825. In this latter year they moved to Cliff Street, and the business soon became the largest in the city. In 1833 the firm adopted the style of Harper & Brothers — a name that has become indissolubly identified with the noblest and most creditable literature of this age. After the disastrous fire of 1853, designs for new buildings, thoroughly fire-proof, strong, well-lighted and ventilated, were at once drawn up, and the present iron edifice on Franklin Square is the result, buildings, although nearly 40 years old, that still command architectural attention. A court-yard separates the front from the rear building, and in the centre is a tower with a spiral stairway. There are no interior staircases; and the elevator, furnaces and steam-engines are in the court-yard. The interior frame-work of both buildings is iron, supported on heavy brick piers. Every operation entering into book-making, except the manufacture of paper and ink, is conducted on the premises — type-setting, electrotyping, designing, engraving, press-work, and binding, as well as the editorial work. The character of the 6,000 books of this house, and of their several periodicals, is well-known the world over. *Harper's Magazine*, established in 1850;

NEW YORK; HARPER & BROTHERS.

Harper's Weekly, in 1857; *Harper's Bazar*, in 1867, and *Harper's Young People*, in 1879, were deservedly successful from the beginning. The firm name remains the same to-day that it was 58 years ago. James, the eldest of the original four brothers, died in 1869, aged 74 years; Joseph Wesley, the third, died in 1870, aged 69; John, the second, died in 1875, aged 78 years; and Fletcher, the youngest, died in 1877, aged 71 years. The business is now carried on by six members of the second and third generations. Who can estimate the noble influence that the work of the Harpers has exerted, through three generations, an influence unequalled by even the foremost educational institution!

NEW YORK: AMERICAN BANK NOTE CO.

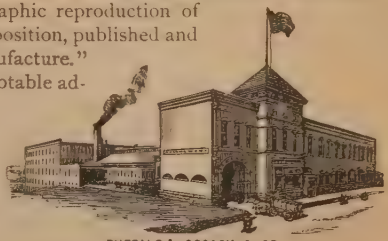
The American Bank Note Company of New York is one of the most famous industries of the Nation. Its world-wide renown has been the result of a rare combination of the highest artistical and mechanical skill throughout a long experience, and its standing to-day is unequalled. The business was founded in 1795, incorporated in 1858, and enlarged and re-organized in 1879. The early and wide-spread use of paper-money rendered it imperative to produce engraved work which could not be counterfeited. The best artists competed in making designs, skilful chemists devised inks and colors to be brilliant and ineradicable, or delible and sensitive, and inventors applied the principles of mechanics to intricate geometrical engraving. The consolidation of these interests under the American Bank Note Company united the resources and reputation, the safe-guards and facilities of a century's experience, with abundant capital to test new inventions and acquire new processes. It has prepared securities to the value of millions and millions of dollars, and bank-notes innumerable, also postage stamps, bonds, stocks, diplomas, drafts, etc., not only for the Government and financial institutions of the United States, but also for Canada and the West Indies, Costa Rica, Nicaragua, Salvador, Colombia, Ecuador, Peru, Bolivia, the Argentine Republic, Uruguay, Brazil, Russia, Italy, Greece, Spain, England, Sweden and Switzerland. Besides its steel-plate engraving, the American Bank Note Company has executed for railroads and various corporations many of the most notable specimens of letter-press printing in black and in colors. The company built and owns, close by Trinity Church, its commodious fire-proof premises, covering ten city lots, the most elegant and complete establishment in its line in the world, where the entire work of engraving and printing is executed.

A department of art in which New York holds a high rank is lithography, which has been studied and carried forward here with increasing skill for many decades. In 1848 Napoleon Sarony founded an industry in this field, which afterwards won a high reputation under the title of Sarony, Major & Knapp. The three heads of this firm one by one retired, and now the business is controlled by Joseph P. Knapp, a son of one of the founders. The business represents an investment of $600,000, including the spacious buildings on Park Place, New York, where 200 operatives are kept at work making chromos and lithographs of all kinds, show-bills, album-cards, chromo-plates for books, and an endless variety of similar articles. All the most modern processes and mechanisms are employed, with results of surprising beauty, so that the chromo of to-day has ceased to be a by-word of reproach, and is one of the most efficient and attractive means of popularizing art. The Knapp lithographic establishment is the largest in the country devoted solely to

NEW YORK: JOSEPH P. KNAPP.

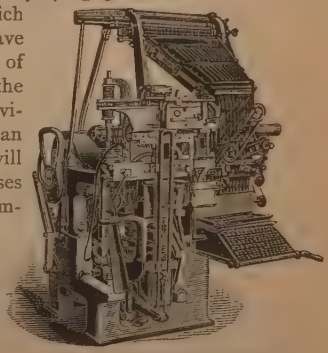
lithography, and its patrons are chiefly enormous concerns in all parts of the Union, who find here the perfection of illustrative work of this character.

An attractive and interesting feature of Buffalo is the great lithographic establishment of Cosack & Co. It employs upwards of 300 persons, and occupies its own large and handsome building on Lake-View Avenue, 100 x 300 feet. The company dates from 1864; and twelve years later its renown was so high that the commissioners of the Centennial Exposition entrusted this firm with the lithographic reproduction of the most important exhibits of the Centennial Exposition, published and known as "Treasures of Art, Industry and Manufacture." Since that time, Cosack & Co. have made such notable advances in their art, that when the projectors of the magnificent work on ancient Egypt, "Mizraim," were ready to place their contracts for this mammoth work — without doubt the greatest enterprise ever attempted in the annals of publishing — it was also entrusted to this firm. Americans and Europeans characterize the beauty of the plates as so far superior to the "Prisse d'Avennes," "Lepsius," "Brugsch Bey," etc., issued under the auspices of the German and French Governments, as to completely overshadow them, clearly demonstrating Cosack & Co.'s standing among the color printers of the world. Their lithographic press-room is the largest and most complete in America, without the obstruction of a single shaft, post, belt or partition, the roof being held up by immense trusses, and the shafting and belting in a tunnel under the floors. In addition to the transaction of a regular lithographic business, and the production of publications and lithography for all commercial purposes, they also carry in stock the largest and most varied and complete assortment of advertizing specialties to be found in the world. Herman Cosack and H. T. Koerner are lithographers of commanding skill; and the third partner, Charles E. Hayes, controls the business department and the company's branches at New York, Chicago, Philadelphia, Boston, Hartford, Cincinnati, St. Louis, Pittsburgh and Toronto.



BUFFALO: COSACK & CO.

When it is considered how much use is made of type-setting for newspapers, periodicals, books, and commercial work, it can be readily understood that printing ranks among the foremost of all American industries. For a long period there was no important improvement made in the setting of type, until the Linotype machine was invented — a machine that is likely to revolutionize the art of printing. The Linotype machines are manufactured, sold and leased by the Mergenthaler Printing Company. Organized in 1886, with a capital of $1,000,000, it has large works in Brooklyn, employing 300 men. It is the sole licensee of the National Typographic Company, which has consolidated the interests of many persons who have been for years developing methods to take the place of type-setting. The Linotypes are already in use by the New-York *Tribune*, Louisville *Courier-Journal*, Providence *Journal*, and many other newspapers. They can set up 9,000 ems an hour, while a type-setter by hand will average only about 1,000 ems. The Linotype dispenses with the use of movable or ordinary type, and with composing and distributing it. By the operation of keys it discharges matrices and spaces, until the line is composed. It is then justified, and molten type-metal forced into a mold, making a bar, or linotype, of any required length. The linotype is then automatically ejected, and added to the preceding series of bars, and the matrices returned to their magazines. The machine



NEW YORK: MERGENTHALER PRINTING CO.
THE LINOTYPE.

TOMPKINSVILLE: LOUIS DEJONGE & CO.

automatically assembles the line, justifies, casts and distributes it. This wonderful typographical invention is fast making its way into printing-offices throughout America and England.

Louis DeJonge & Co., whose main offices are in New-York City, are beyond all question the foremost house in America in their special industry, which consists of the importation and manufacture of fancy papers, leathers, bookbinders' cloth, box-makers' pictures, borders and ornaments, and tar and pasteboard, and the kindred supplies needed by bookbinders and box-makers. At their extensive works at Tompkinsville, on Staten Island, composed of several substantial buildings, their special products include fine lithographic coated papers for color work; plated and glazed surface-coated papers in all colors for printers and paper-box makers; plain and embossed leather papers; and also lining papers for bookbinders. In these lines this is the foremost and the oldest house in this country. The business was established in 1847; and in 1858 the factory began operations. Employment is given to 400 people; the business reaching $2,000,000 a year. The business was carried on under the name of J. & L. Dejonge, succeeded in 1868 by the present firm; Louis Dejonge still being at its head, and his associates being Charles F. Zentgraf and Louis Dejonge, Jr.

At Ballston Spa are the paper-mill offices of the Hon. George West, several times a member of Congress, and recognized as one of the most notable paper-makers in America. He came from England in 1848, after having served at the paper-trade about a dozen years, as he had been apprenticed in 1837. Since 1848 he has never been out of this industry. At first he settled as a journeyman in Massachusetts, where by industry and ability he obtained the approbation of his employers and associates, and by economy he managed to accumulate some little means. Later he came to New-York State, and in 1862 he bought the Empire Mills at Ballston Spa. Since then he has acquired and still owns eight paper mills—the Union, Island, Glen, Eagle, Pioneer, Excelsior, Empire, and Hadley, their total capacity being 30 tons of paper a day, in addition to 3,000,000 paper bags. The product is manilla paper, in all its grades, weights and sizes, and in many shades. He was the first to introduce into the United States a "Dandy Roll," for making special water-marked writing papers. His goods are sold throughout the Union. At Ballston Spa he has been active in public affairs, and is prominent in the financial and fraternal institutions. Here, too, is West's Spring, which, sunk to a depth of 600 feet, pours forth a stream resembling the Saratoga waters, but which Prof. Maurice Perkins declares is stronger than any of them, and a very valuable mineral spring.

BALLSTON SPA: GEORGE WEST'S UNION MILL.

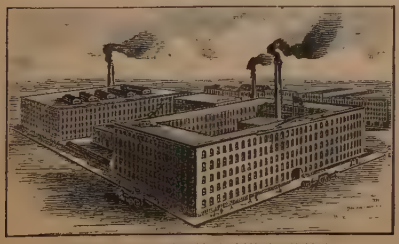
The universally popular interest in photographic art, which is so marked a feature of the present day, depends largely on apparatus and supplies devised or introduced by E. & H. T. Anthony & Co., 591 Broadway, New-York City, preëminent in all the world as manufacturers and sellers of all photographic materials. The famous house of E. & H. T. Anthony & Co. was founded in 1842, as a result of the efforts of Edward Anthony to follow out the discovery made by Daguerre. By the year 1850 E. Anthony had become the largest manufacturer of photographic materials in the world. Two years later Edward's brother, Henry T. Anthony, entered the firm. In 1870 Col. Vincent M. Wilcox entered the company, of which he is now president. W. H. Badeau was a partner from 1865 to

NEW YORK:
E. & H. T. ANTHONY.

1875. E. and H. T. Anthony are both dead, but younger members of the family have taken their places. The Anthony establishment occupies all four floors of a building extending through from Broadway to Mercer Street, New York, and has its chemical works in Jersey City, and three factories for the manufacture of cameras and apparatus at Brooklyn, New York and Hoboken. This is the foremost house in America in its supply of photographic chemicals and apparatus, and in the importation of photographic supplies. They publish the well-known photographic journal, *Anthony's Photographic Bulletin*, edited by Profs. Charles F. Chandler of the School of Mines, Columbia College, and Arthur H. Elliott of the New-York College of Pharmacy, as well as the *International Annual*, and thirty-three books on various branches of photography.

The world-renowned jewelry house of Tiffany & Co. was founded in 1837, by Charles L. Tiffany, its present head, mainly for the sale of Chinese fancy articles. In 1844 the importation and manufacture of jewelry was added, followed seven years later by the manufacture of silver-ware. The French Revolution of 1848 caused a great decline in the price of diamonds, and the firm then bought precious stones to the extent of its ability, and became, and for the subsequent 40 years has remained, the leading American precious-stone house, with most skilful diamond-cutters and lapidaries. Among other branches Tiffany & Co. manufacture plated ware, jewelry, leather goods, stationery, ivory goods, clocks and cutlery, employing 1,000 persons. The whole product is sold at retail, and at fixed prices; dealers are not supplied. The designers and makers of exquisite Tiffany jewelry and other articles are all Americans, educated and trained in this establishment. Tiffany & Co. became a corporation in 1868. Their main six-story establishment fronts on Union Square, New-York City. There is no concern in its line in Europe or America that approaches it; it stands absolutely beyond comparison. It is a store-house of gems and fine art goods that represent the highest skill, the most exquisite taste, and the marvelous ingenuity of all the world. It is one of the most noted sights of this country, and no one has ever seen New York who has not visited the Tiffany establishment. The first floor displays an exhibit of diamonds and precious stones that can be seen nowhere else on either continent, and a wonderful array of jewelry and silver and silver-plated ware; the second floor, bronzes, marbles and clocks; the third floor, pottery, china and glassware; and the fourth, fifth and sixth floors are used for manufacturing. The silver-ware factory, on Prince Street, and the plated-ware factory, at Newark, are two of the most perfectly equipped and efficient manufacturing establishments in the country. Tiffany & Co. received the most illustrious honors at the great Paris Exposition, where they led the world in jewelry, in silver-ware and in silver-plated ware.

NEW YORK: TIFFANY & CO.



BROOKLYN: ANSONIA CLOCK COMPANY.

The Ansonia Clock Company is one of the preëminent clock manufacturers of the world; and by reason of its marvelous output in quantity and quality of ingenious and elegant wares has enjoyed for many years the increasing esteem of the industry in which it is so conspicuous a factor. It derives its name from a bright little

Connecticut town named for Anson D. Phelps, with which it had affiliations originally; but for years its great, handsome and well-equipped brick factories have been a prominent feature among the industries of Brooklyn. The clocks made and sold by the Ansonia Company include thousands of styles and patterns, from the little bee, and a great variety of chamber and kitchen clocks, up to the most elaborate and beautiful bronze and enamelled iron time-keepers, with cathedral gongs, the modern onyx clocks, others of French marble, and richly carved hall clocks, nearly nine feet high, in tall oak or mahogany cases. The company also makes a great variety of brass and bronze clock-sets, vases, candelabra, statuettes, tableaux, and other art objects. The Ansonia Clock Company's executive offices are in New-York City, and its products are sold throughout the world.

ALBANY: POST-OFFICE.

About 40 years ago was founded the Archer & Pancoast Manufacturing Company of New York, which stands at the head of all American manufacturers of fixtures for gas and electric lights; separately for gas or electricity, or combined for both. Even their commonest and cheapest fixtures have some pretensions to style and combination; while their higher grades are veritable specimens of noble works of fine art, many pieces being designed by the most famous architects and artists, and executed by artisans whose skill displays rare genius. Archer & Pancoast's success has come from the production of fixtures having artistic and appropriate design and finish, whatever the uses and whatever the cost. Not only are their fixtures to be found in modest homes, but also in palatial residences like Vanderbilt's and Marquand's of New York, and Potter Palmer's of Chicago, and also in great public edifices like the Madison-Square Garden, Manhattan Athletic Club, Equitable Life, and United-States Trust. Their national character is seen in the fact that out on the Pacific coast their work appears in the Palace Hotel; in Indianapolis in the wonderful Indiana State Capitol, and in Hartford in the exquisite Connecticut State Capitol. The Archer & Pancoast Company, incorporated in 1868, has a paid-up capital of $600,000, and employs 500 workmen. The factory is a fine six-story brick building, erected in 1888 and equipped with ingenious machinery.

NEW YORK: ARCHER & PANCOAST MANUFACTURING COMPANY.

An interesting outgrowth of the modern art development of the United States is the growth of the silver-smith's art, which is making thousands of pieces of beautiful silverware, destined to become the prized heirlooms of families of the twentieth century. Prominent among the corporations carrying forward this artistic and attractive industry is the Whiting Manufacturing Company, whose works at New-York City employ 400 men in the fabrication of every article of solid silver known to the trade or used by the people. Their business was founded many years ago, and has advanced until it now employs a very large capital. The artistically beautiful products created by this company, and wrought out by skilled artisans, are now to be found all over the world, sometimes in forms that would have done honor to Benve-

NEW YORK: WHITING MANUFACTURING COMPANY.

uto Cellini, and always affording keen delight to artistic and appreciative spirits. None of the famous silversmiths of Europe can demonstrate superiority to this widely known company. The Whiting company has confined itself strictly to pure solid silver goods, so that its very familiar trade-mark always means the finest wares. Its factory is at Fourth Street and Lafayette Place, but its main selling establishment, wholesale and retail, is on Union Square, New-York City.

NEW YORK: GORHAM MANUFACTURING COMPANY.

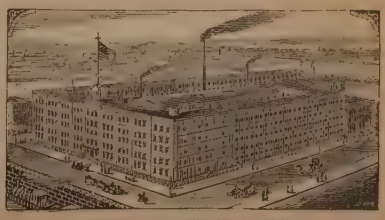
The Gorham Manufacturing Company of Providence, (R. I.), has two grand warehouses at New-York City, at Broadway and Nineteenth Street and 9 Maiden Lane, where they make a rare display of silver and silver-plated ware.

The very attractive sales-rooms of the Bradley & Hubbard Manufacturing Company are at 26 Park Place.

While many business houses in England date back to the last century, few in America can show an existence of 136 years, like F. W. Devoe & Co., founded by William Post, of New York, in 1755. Paints and colors, with their adjuncts of varnishes, brushes and artists' materials are manufactured by this firm in a high grade of perfection, formerly attainable only in European centres. In 1889 F. W. Devoe & Co., received at the Paris Exposition the only award, a gold medal, for fine railway varnishes. As this was in competition with all the fine varnish-makers in the world, the honor accorded to this firm for excellence of manufacture stands out in strong relief. Colors of every description are made by F. W. Devoe & Co. in a degree of purity and fineness at least equal to those of England and France. In their large brush-factory may be seen manufactured every description of brush, from an artist's red sable miniature to a whitewash head. A concern like this, which employs hundreds of men, and is managed with skill and discretion, certainly inspires confidence in the public. From 1794 to 1855 the shop was in a small wooden building at the corner of Water and Fletcher Streets. In 1852 Mr. Devoe entered the firm, which now includes also James F. Drummond and J. Seaver Page. The salesrooms and offices are at the corner of Fulton and William Streets, New York; the paint-factories, at Horatio and Jane Streets; and the varnish and Japan works, at Newark (N. J).

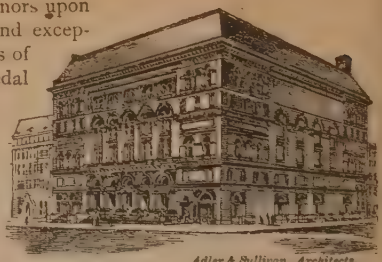
NEW YORK: F. W. DEVOE & CO.

Liszt, Wagner, Berlioz, Rubinstein and numberless other celebrated musicians and artists have borne witness to the unrivaled qualities of the Steinway pianos. They pronounce them unsurpassed in poetic and sympathetic tone, color, sonority, sustaining power, and sparkle and brilliancy of tone; unsurpassed in the precision, elasticity and power of their action, and beyond competition in their solidity of construction, general excellence of workmanship and consequent durability. Whenever and wherever exhibited they have invariably received the highest distinction. A first-prize medal was awarded them at the London International Exhibition, in 1862. They received the first grand gold medal at the Paris Exposition Universelle in 1867; the two highest awards at the Centennial Exhibition in Philadelphia, 1876; and first premium and two special diplomas of merit at the Sydney International Exhibition in 1879. King Charles XV. of Sweden, in 1868, honored the Steinways by decreeing them the grand national gold medal with crown and ribbon. The Royal Academies of Arts and Sciences of Stockholm



NEW YORK: STEINWAY & SONS.

and Berlin, also in 1868, conferred academical honors upon members of Steinway & Sons for "remarkable and exceptional improvements." The Society of Fine Arts of Paris, in 1867, awarded them an honorary prize medal for "the excellence and the superiority of their pianos." In 1885, at the International Inventors' Exhibition at London, they were awarded the grand gold medal for "excellence of their pianos and several meritorious and useful inventions," and at the same time the London Society of Arts presented to them a special gold medal. In 1890 Steinway & Sons were appointed, by three separate Royal Warrants, "Piano Manufacturers to Her Majesty the Queen of England and their Royal Highnesses the Prince and Princess of Wales." Steinway & Sons stand preëminently at the head of the piano industry; and they lead the world in the value of their factory plants in New-York City, at "Steinway," Long Island, and at Hamburg, Germany, and in the universal reputation of their pianos.



Adler & Sullivan, Architects.

NEW YORK: MUSIC HALL.

NEW YORK: J. & R. LAMB.

The rapid development of ecclesiastical art in the United States is largely due to the efforts of two brothers, young Englishmen, who in 1857 founded their business under the firm name of J. & R. Lamb. They were the first to formulate in the United States the idea of religious art as a specialty; and as artistic missionaries they have replaced the bareness and ugliness of the church interiors of those days with harmonious color and symbolical decoration, in wood, metal, stone and marble. Their industry has been housed in the heart of old Greenwich Village, at No. 59 Carmine Street. This is now lower New York. Carmine Street is practically an extension of Sixth Avenue on the south, and the Sixth-Avenue cars continue their way down town past the door of No. 59. In their "works" they have gathered together the best art-craftsmen of the Old World; German woodworkers, Swiss carvers, English workers in metal and stained glass, Italian mosaic-workers and embroiderers, and French repoussé-workers and engravers. These various nationalities work harmoniously together, directed by the Lambs, and thus the designs made under American influence are executed by the best trained foreign skill. Some of the finest examples of altars, reredoses, rood screens, pulpits, eagle lecterns, stained-glass windows, mosaics, and mural paintings have here been created. When possible, the entire interior of the church, including the chancel and baptistery, complete in all details of furniture, color and glass, have been executed, and in this way a unity and harmony have been secured, impossible under any other method. The house in old Carmine Street, New York, receives many visitors from all parts of the country, because it is a museum of embroideries and tapestries, carving, stained glass, and everything valued in religious art. As specialists in ecclesiastical art work, J. & R. Lamb stand at the head of the profession; first in business; first in price; and first in patronage.

LOCKPORT: ERIE CANAL LOCKS.

The development of optical instruments is one of the most beneficent phases of modern science, and affords constant comfort to millions of people, besides

ROCHESTER: THE BAUSCH & LOMB OPTICAL COMPANY.

giving increasing facilities for careful scientific research. In Rochester there is a large and handsome factory, where 400 persons are employed in making microscopes and their accessories, eye-glasses and spectacle-lenses, photographic lenses and diaphragm shutters, telescopes and magnifiers, and other kinds of optical goods, which are sent thence to all parts of the world. This is the famous establishment of the Bausch & Lomb Optical Company, founded in 1853 by J. J. Bausch (now its president), and honored with many medals and diplomas at the world's great expositions. Their products are made by the aid of a variety of delicate and ingenious machinery, covered by specific patents, and perfectly adapted to the grinding of the glasses, the preparation of the mountings, and other interesting processes. The company has a well-equipped branch office in New-York City. The Bausch & Lomb establishment may be considered a semi-public scientific institution, wherein the results of the most efficient scientific and mechanical experiments and study are given to the public in the way of optical goods of a peculiarly high grade, the products ranking on an equality with the best of makers in the olden lands. As a general optical establishment it stands foremost of all in this country. Its products, while adapted to the requirements of individual use, go largely into the laboratories of the many educational institutions, where they are an important factor in the educational system, and are also used for scientific research in the various departments of the United-States Government.

A singularly interesting industry of Troy is the manufacture of instruments for engineers and surveyors, which was founded here by Julius Hanks, in 1825. On the site of his quaint old two-gabled building now stands the large manufactory of W. & L. E. Gurley, of Troy, devoted to the same business, and successfully conducted by two college-bred brothers, one of whom entered the Hanks establishment in 1840. The yearly product is over $200,000, far exceeding the output of any similar concern in America. There is not a State or Territory in which the Gurley instruments are not used; and great numbers of them have been exported to Mexico, Cuba, South America and Canada, and to such remote countries as Egypt, Syria, Arabia, China and Japan. The engraving and graduating machinery is of exquisite delicacy and precision; and platinum wire is made here of such exceeding fineness that a thread of it long enough to encircle the earth could be coiled inside a thimble. The work-shops in this factory are particularly worthy of mention as models in their line; the whole being filled with ingenious machinery, admirably arranged, and the workmen bearing evidence of intelligence and masterly skill. The names of William Gurley and Lewis E. Gurley are also identified with a number of Troy's institutions.

TROY: W. & L. E. GURLEY.

America has in various ways surpassed all other countries. One of the finest types of this supremacy is shown in the marvelous wholesale dry-goods house of the H. B. Claflin Co., of New York, whose sales for a score of years have exceeded in amount those of any other mercantile house in the whole world. In the present the sales amount to almost $50,000,000; the whole amount being exclusively in strictly wholesale dry-goods. The founder of this house was the late Horace B. Claflin, who began in New York in 1843, and died in 1885, leaving an unblemished record for business integrity and ability. The capital stock of the company is $9,000,000; the subscription to which, in 1890, was one of the most marked evidences of esteem, there being over $21,000,000 subscribed for the

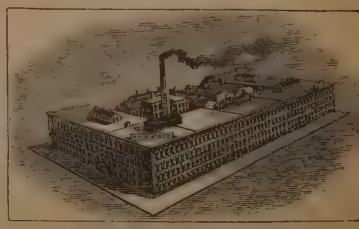
$3,000,000 offered to the public. The premises occupied comprise one of the largest business houses in the country, and are valued at upwards of $2,000,000. When they were built, they surpassed every building erected for the wholesale dry-goods trade, and to-day they fairly rival all that have since been built; the frontage on Worth Street alone being 375 feet. The estimated net profits of the business are about $1,000,000 a year. The active head of this gigantic concern is the founder's eldest son, John Claflin, who holds the office of President of the company.

NEW YORK: THE H. B. CLAFLIN COMPANY.

The commercial importance of the fur-trade to New-York City has steadily increased since early in the present century, when the industry was founded by such pioneers as John Jacob Astor, Carson Brevoort, Ramsay Crooks, Christian G. Gunther and John G. Wendel. As far back as 1820 Christian G. Gunther founded, in Maiden Lane, New-York City, the business now carried on under the name of C. G. Gunther's Sons, which was for years a notable landmark, and which now, after a lapse of nearly three quarters of a century, is one of the monuments of the city's commercial enterprise and success. The sign of the "White Polar Bear," so familiar to many old New-Yorkers, and famous in itself as the work of Launitz, the first American sculptor, was moved from the old Maiden-Lane stand in 1866 to 502 and 504 Broadway, and again in 1876 to 184 Fifth Avenue, the present location of the firm. The business has been carried on in a direct line of succession, and is now in the hands of the third generation, the grandsons of the founder. The house stands foremost in the trade, not only as the oldest of its kind in the United States, but in the volume of business transacted. Its patrons include the leading people, not only of New-York City, but of every section of the country where furs are in vogue, and they never fail to find at the handsome warerooms of this establishment an incomparable assortment of manufactured furs, in most instances the original conceptions of this leading house, and invariably designed to conform to the latest decrees of fashion.

NEW YORK: C. G. GUNTHER'S SONS.

The crown and culmination of a gentleman's apparel is his hat; and the originator and leader of styles in this country is the firm of R. Dunlap & Co., whose main retail store is at 178–180 Fifth Avenue, close to the Fifth-Avenue Hotel, with an elegant store at 181 Broadway, and an enormous hat factory in Brooklyn. Robert Dunlap founded this business in 1857, and is the only partner. The Dunlap products have won medals at the Philadelphia, Paris and other expositions, and include a full and complete line of silk, felt, straw and opera hats for gentlemen, all of the finest grades and latest styles, besides a variety of jaunty and fashionable hats for ladies. The factory at Brooklyn employs 700 persons, their yearly pay-roll reaching $500,000, and is the most complete establishment of its kind in this country. It also maintains large retail stores in Philadelphia and Chicago, and has agents in all the other principal cities. A "Dunlap hat" is a standard staple commodity, and is to be found in every town in the United States where a respectable hat store is kept.



BROOKLYN: R. DUNLAP & CO.

COHOES: TIVOLI HOSIERY MILLS.

The busy city of Cohoes, on the Mohawk River, near its confluence with the Hudson, turns out over $10,000,000 worth of manufactured goods every year; and is famous for an immense output of hosiery and underwear. In 1855 a factory for making underwear was founded here by J. G. Root, who admitted his sons A. J. and S. G. Root to partnership, in 1860, and afterwards retired himself. The business was incorporated in 1875 as the Root Manufacturing Co., of which A. J. Root is president. It owns and occupies the three four-story brick buildings known as the Tivoli Hosiery Mills, admirably equipped with all kinds of modern machinery, and employing 550 operatives. The Root Manufacturing Co. manufactures extensively the famous "Standard" knit underwear, making a specialty of ladies', gentlemen's, boys' and children's fine white-wool, scarlet, camels' hair, natural and white merino underwear, which is unrivalled for quality, finish, durability and uniform excellence, and has no superior in the European or American markets, while the prices quoted in all cases necessarily attract the attention of prudent and careful buyers. The resources and facilities of the company are so complete and extensive, that the largest orders can be promptly filled, an advantage that the trade is quick to appreciate. The trade extends throughout all sections of the United States and Canada, and is speedily increasing, owing to the superiority and reliability of its standard knit underwear. The influence exercised by this company in the manufacture of underwear has been of the most salutary and useful character. While the corporation is the Root Manufacturing Company, the mills are known as the "Tivoli Hosiery Mills." The selling agents are William Iselin & Co., 339 Canal Street, New-York City.

NEW YORK: MASONIC TEMPLE.

New York has naturally the commanding position as a distributing point for all manner of head-coverings for the 65,000,000 of American people, and there, too, as a natural outcome of this position has developed the one great house—C. H. Tenney & Company—that leads the world in the handling of hats. In 1867 Charles H. Tenney founded the house, as commission-merchants in fur, wool and straw hats, and he (being still the only partner) handles the product of 40 manufacturers of New England and the Middle States. This group of factories employs 5,000 persons and their yearly products exceed $5,000,000 in value. The Tenney establishment at 610–614 Broadway has nearly three acres of flooring, and is the largest of the kind in the world. The trade centering here reaches the remotest parts of the Republic, supplying hats of all kinds, for all seasons and uses.

NEW YORK: C. H. TENNEY & CO.

The wholesale grocery house of the Thurber-Whyland Company was established in New-York City, in 1857, by H. K. Thurber and John F. Pupke, and, after several changes in the *personnel* of the partners constituting the house, it was incorporated under the above title, January 3, 1891, with a capital of $3,000,000. It does the largest business in food products in the world, comprising everything that is eaten or drunk. Its trade extends throughout the United States and to every civilized country of the world, a result which has been attained by the reliable

quality of the goods manufactured and dealt in, and by honorable dealing. The incorporation of the Thurber-Whyland Company is in keeping with an apparent tendency of the times for all large establishments to assume a corporate form, as being preferable to individual partnerships, which are subject to frequent changes through death and other causes.

NEW YORK : THURBER-WHYLAND CO.

One of the most important industries located on the Brooklyn water-front of New-York harbor is the extensive roasting establishment of Arbuckle Bros. Coffee Company. Their large factories form one of the familiar sights from the Brooklyn Bridge, and illustrate the great demand for the Arbuckle coffee. Thousands of car-loads of this coffee are annually shipped all over this great country, and the demand and popularity of the article are still constantly increasing, and taxing even the exceptional facilities which the Arbuckles have for handling their product. Almost any day you may see large ocean steamships unloading at their docks cargoes of green coffee, imported direct through their branch houses or agents established in the coffee-growing countries of the world. Across the same dock you may see trains of freight cars, on floats, being loaded with cases of coffee brought to them from the mills by machinery. The mills themselves are, by far, the largest in the world, and are thoroughly equipped with all the latest improvements and machinery for properly and economically doing their work. The Arbuckles have always stood for purity in coffees. They started out with this idea, and have always rigidly adhered to it, and now see the reward in the largest coffee business in the world.

BROOKLYN : ARBUCKLE BROS. COFFEE CO.

The firm of John Dwight & Co., of New York, which began business and the manufacture of bi-carbonate of soda and saleratus in 1847, was the result of the belief that these products could be manufactured better by improved original methods than was then being done in England, where the entire supply for this country was at that time obtained. The results of the experiments then tried, proved eminently satisfactory, and the birth, in America, of a new industry was an accomplished fact. From a very small beginning, the business has grown, until the factory and its appurtenances cover 3½ acres of ground, in the heart of the city of New York. The firm attributes its success principally to the superior quality of the products of its manufacture. It has been their constant endeavor to make the Cow brand of soda and saleratus preëminent. The magnitude of the business done, and the character of the trade supplied, will bear ample testimony to what degree of success they have attained, the goods of John Dwight & Co. being found everywhere from Maine to California, in general and favorite use among the households of America.

The name of E. R. Durkee & Co. has become synonymous with reliable food products, fine spices, salad dressing and kindred appetizing condiments, throughout the United States. This unique industry was founded in 1850 by E. R. Durkee, and it has developed into the largest business of its kind in this country. The house employs several hundred hands, and has its office, laboratory and warehouses in New York, with extensive ware-

NEW YORK : JOHN DWIGHT & CO.

houses and mills in Brooklyn, fully equipped with all the latest improved machinery and appliances necessary for the successful prosecution of their business. They import large quantities of whole spices, cereals, etc., from all parts of the globe, which (ground and unground) are put up by ingenious and private methods, invented and controlled by the firm, in sealed packets of very attractive style and convenient sizes. Their dressings for salads and cold meats are made in great quantities, by careful processes under their personal supervision; and their "Gauntlet Brands" of salad dressing, mustards, spices, extracts, etc., have not only become famous, but are the acknowledged standards of excellence, and may be found in every first-class jobbing and retail grocery in the United States and Canada.

Just west of the business-heart of New York City, near the river-front, is the great factory of Sapolio, one of America's most famous products; a fame built up by rare enterprise. Sapolio, in its silver wrapper and blue band, is seen in almost every household. It has saved to the toilers of the world an amount of labor beyond all computation, has gained a substantial foothold among the masses of the people of all civilized countries, and brought renown and wealth to its proprietors, the well-known house of Enoch Morgan's Sons Co. The business was established originally as soap and candle manufacturers in 1809, by the family of Enoch Morgan. In 1869 Sapolio was first introduced, and in no country has there ever been produced an article for general house-cleaning purposes that has met with anything like its success, a part of which is due to its exceptionally able advertising, the cost of which in a single year has amounted to over $300,000. Like all successful productions, Sapolio has had many imitations, but it has maintained its rights in the courts with a courage that not only deserved, but secured, success, and its trade-mark cases are quoted as precedents in almost every suit against infringers of trade-mark rights.

NEW YORK: E. R. DURKEE & CO.

NEW YORK:
ENOCH MORGAN'S SONS CO.

Rochester has a world-wide fame for its nurseries and seed-houses, sending out trees and plants by the million, and a limitless quantity and endless variety of seeds, 5,000 people being engaged in this work, which also has several magazines.

Troy manufactures enormous numbers of stoves, and also both makes and launders millions upon millions of linen collars and cuffs.

Binghamton is the third city in the United States in the cigar-making industry.

Brooklyn has the leading sugar-refineries of the Union, and a vast number of other manufactures.

Gloversville and Johnstown produce gloves and mittens, in every variety, and of many materials.

Oswego has the largest starch-factory in the world covering five acres of ground, and employing over 1,000 operatives.

Among other interesting products are the peppermint-oil of Lyons, cheese of Little Falls, whips of Windsor, condensed milk of Amenia, toys of Walton and Waverly, typewriters of Ilion, rakes of Canastota, ultramarine of Tottenville, straw-paper of Chatham, tinners' tools of Tarrytown, pails of Clifton Springs, fire-engines of Seneca Falls, piano-stools of Dobb's Ferry, locomotives of Schenectady and Dunkirk, air-guns of Herkimer, and oil-cloth of Newtown.

The largest manufactory of exclusively fine vehicles, comprising landaus, broughams, coupés, victorias, Berlin coaches, and others, and mortuary vehicles, consisting of hearses and wagons, in the country, is the James Cunningham, Son & Co. Their work is all done at the huge factories of the company, in all its detail. The styles are the very latest, and the workmen are experienced operators. The Cunningham vehicles are very widely known, and distributed through their branch offices at New York, Chicago and St. Louis. The business has been carried on for a period of over 50 years by James Cunningham and his son. About eight years ago the firm was converted into a stock company, with a capital of $803,000, to which is added a surplus of an equal amount, and, although nominally a great stock corporation, with more than a million and a half invested, and doing business over the whole Union, it is nevertheless practically a great family partnership of an exceptionally successful character. The works are located at Rochester, and are very large and extensive brick buildings, five, six and seven stories high. There are 600 men employed the whole year round. The specialty of the company is high-grade vehicles.

ROCHESTER: THE JAMES CUNNINGHAM, SON & CO.

The bright and active city of Syracuse has numerous lucrative successful industrial enterprises, one of the strongest and oldest of which is the Syracuse branch of the Whitman & Barnes Manufacturing Co. The spacious and handsome factory covers a square of ground, and is thoroughly equipped with all the complicated, powerful and ingenious machinery necessary for the conduct of the work. Prominent among its output is an almost infinite variety of mower-knives and reaper sickles, whose excellence is known to the farmers of many States. The company also manufactures spring-keys, and many other articles of similar character. Besides the Syracuse factory, it has works at Akron and Canton (Ohio), and St. Catherine's (Ontario). The president of the company is Hon. A. L. Conger; and George Barnes is chairman.

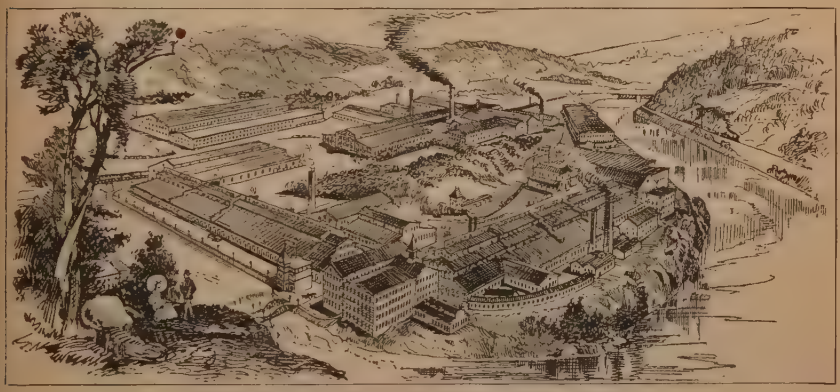
SYRACUSE: WHITMAN & BARNES CO.

Kitchen-ware is now of so varied a description that many pages would be required to properly describe it. Back 200 years, earthen-ware was made in New York. To glaze this the most primitive methods were adopted. After earthen-ware came porcelain, and that has been the housewife's pride for a long time back. Great care, however, had to be taken of the porcelain-lined kettles, and their liability to crack made them a source of anxiety to the housewife. Manufacturers and dealers began to look about for a substitute. This was finally arrived at in the advent of stamped metal ware. Sheet metal was pounded and stamped by dies of great power into kettles, pots and pans. As there was a complaint that these tasted "tinny," and would rust and get easily bruised, the popular favor sought better wares, and perfection was found in the "Agate Iron Ware." The Lalance & Grosjean Company was one of the five great companies that consolidated the tinware departments into the Central Stamping Company, and it is thus enabled to devote itself exclusively to the "agate iron wares," which is a stamped iron with a porcelain-like coating, in high glaze, and decorated in imitation of marble or stone. By this means, with iron as a base, the ware is durable, non-dentable, unbreakable and inexpensive; and by reason of the

WOODHAVEN: LALANCE & GROSJEAN MFG. CO.

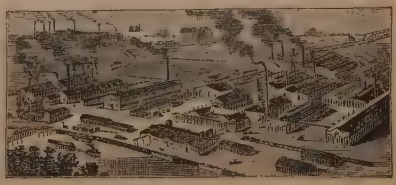
handsome and always polished finish is a thing of beauty and cleanliness. This was manufactured by the Lalance & Grosjean Manufacturing Co., a company operated at Woodhaven, N. Y., with $2,500,000 capital. This company were one of the pioneers in stamped ware, having begun its manufacture in 1850. Their plant covers 15 acres, and they give employment to 1,500 hands. They have received awards at expositions all over the world, and in the line of stamped ware and agate ware rank pre-eminent.

Until 1853 the work of harvesting grain was done by hand. It was a slow and wasteful way. At that time Walter A. Wood, an ingenious young mechanic, began experimenting with harvesting machines. It was then an open question if such machines were practical; but his bold pioneer work has resulted in the Walter A. Wood Mowing & Reaping Machine Co., one of the largest in the world. He is its active president. The company has 40 offices, eight of them in Europe, four in South America, five in Australia. The plant at Hoosick Falls, N. Y., covers 85 acres, including freight-houses and tracks. The company owns and operates two locomotives and a large number of cars on its own premises. In their employ are many thousand people. Their specialty is the manufacture of machines for mowing hay and for reaping and binding grain. During the company's career over 850,000 of them have been sold. They have taken twelve highest prizes at International expositions, and over 1,250 first premiums at State fairs and field contests. The machines are used in all civilized regions, except Asia; and even there they have a foothold. The Walter A. Wood Mowing & Reaping Machine Co. is one of the gigantic industries of America.



HOOSICK FALLS: WALTER A. WOOD MOWING & REAPING MACHINE CO.

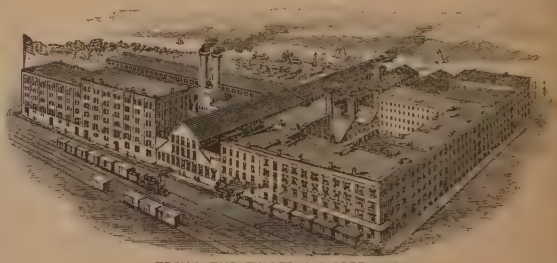
The manufacturing establishment of Pratt & Letchworth, organized in the year 1848, is one of the notable institutions of the city of Buffalo. It is, indeed, one of the notable industries of the whole State of New York. It was the first house to manufacture a complete line of carriage malleable iron. Commencing first in importing saddlery hardware from England, it gradually developed into manufacturing the same articles itself, giving close attention to the special and patented articles, of which it has introduced, in the way of valuable patents, more than any other saddlery hardware concern in the country. The company employs over 1,100 people in the manufacture of malleable iron, steel castings, saddlery hardware, wood hames and iron toys. Of these combined lines it is the largest manufactory in the country, with a trade extending from the



BUFFALO: PRATT & LETCHWORTH.

Atlantic to the Pacific, and an extensive export trade to South America and Australia, and to a limited extent to the Continent of Europe. An interesting feature in connection with the house is, that during its entire history it has never had any trouble whatever with its employés in the shape of strikes and lockouts. It has a free library for the use of its employés. The group of factory buildings form a picturesque industrial establishment, where solidity, neatness, admirable arrangement and complete equipment are everywhere noticeable.

Stove-making is one of the chief industries of the region of Troy and Albany, whose products are exported to Europe, Australia, South and Central America and Mexico in vast quantities. The business began at Troy in 1821, and the value of the stoves made there yearly is nearly $3,000,000. The chief firm is the Fuller & Warren Co., whose Clinton Stove Works, comprising a group of fine brick buildings, cover six acres and employ 1,200 men, with a yearly out-put of 60,000 stoves. They occupy the same ground taken at the foundation of the firm, in 1836. From their six large American agencies, the products of these works are distributed to all parts of the United States; and extensive shipments are continually made to distant countries. No work of the kind surpasses theirs in scientific excellence of construction, beauty of design and perfection of casting, results due to the enterprise of the manufacturers and the disciplined skill of the operatives. The unapproachable merit of their castings and designs has made Fuller & Warren familiar wherever stoves are needed to cook the food of civilized man, or to shield him from the rigors of winter.



TROY: THE FULLER & WARREN CO.

The New York Anderson Pressed Brick Company was organized in 1887 to manufacture the well-known Anderson pressed, face, shape and ornamental brick, under a license from J. C. Anderson, patentee, for the States of Connecticut and New Jersey, and that part of the State of New York lying east of the meridian of Washington, D. C. Their immense works, of which the engraving will give an idea, are located at Kreischerville, Staten Island, on the shore of Staten-Island Sound. The product of this company has achieved the highest reputation in New York for uniform excellence and beauty. Their buffs, grays, garnet, old gold, mottled, brown, red, rock-faced, etc., are largely used in the best class of buildings in New York, Brooklyn and other eastern cities. The company are the owners of beds of the rarest varieties of clay in this country, which enables them to meet the most artistic requirements, a fact the New-York architects were not slow in discovering. Mr. Anderson's now celebrated system of burning on cars was first put into practical use by this company. Their office is at 132 Mangin Street, New York.

STATEN ISLAND: NEW-YORK ANDERSON PRESSED BRICK CO.

The American Biscuit and Manufacturing Company has a very large plant at New York. Here, also, is the headquarters of Belding Bros. & Co., the silk manufacturers, who have large and prosperous mills in Connecticut, Massachusetts, Michigan and California.

NEW YORK: AMERICAN BISCUIT AND MFG. CO.

HISTORY.

The earliest inhabitants of North Carolina were the Mound-Builders, dwelling in the deep valley between the Blue Ridge and the Alleghanies. They were annihilated by the fierce Muscogees, who, in turn, gave way, after an exterminating war, to the Cherokees. This great tribe, with its 60 towns and 6,000 warriors, joined the British in fighting the French, and afterwards in harassing the American colonists. After many a wild foray, they were confined to the valleys southwest of the Balsam Mountains. In 1835 a part of the tribe sold its Carolina domain, and moved beyond the Mississippi. Many Cherokees remained hidden amid their native mountains; and four companies of them enlisted in the Confederate army, while others joined the Union Tennessee regiments. About 1,200 now dwell on the Qualla Reserve, south of the Balsam Range, forming a scattered community of farmers, educated in English as well as Cherokee, and governed by a salaried chief (elected every four years), and a council, whose seat is at Elawati (Yellow Hill). No one can hold office who has helped defraud the tribe, or denies the existence of God, or disbelieves in Heaven and Hell. This Eastern band of Cherokees numbers 2,885, mainly full-bloods. They have five day-schools, and a training-school conducted by Friends. They also enjoy the privilege of voting, and are Republican almost to a man. The Tocheeostee ("Racing River") of the Cherokees became known as the French Broad. Swannanoa perpetuates the sound of its multitudinous ravens' wings; Tuckasegee, the terrapins of its valley ponds; Nantahala, the noon-day sun, lighting its dark glens; and Cullasaja, the sweet waters.

STATISTICS.

Settled at . . .	Roanoke Island.
Settled in	1585
Founded by	Englishmen.
One of the original 13 States.	
Population in 1860, . .	992,622
In 1870, ...	1,071,361
In 1880, ...	1,399,750
White, ...	867,242
Colored, ...	532,508
American-born, . .	1,396,008
Foreign-born, . . .	3,742
Males, ...	687,908
Females, ...	711,842
In 1890 (U. S. Census),	1,617,947
Population to the square mile,	31
Voting Population, . . .	294,750
Vote for Harrison (1888),	134,784
Vote for Cleveland (1888),	147,902
Net State Debt, . .	$7,538,567.79
Real Property, . . .	$122,000,000
Personal Property, .	$81,000,000
Area (square miles), . . .	52,250
U. S. Representatives (in 1893),	9
Militia (disciplined), . . .	1,478
Counties, ...	96
Post-offices, ...	2,638
Railroads (miles), ...	3,001
Vessels, ...	370
Tonnage, ...	13,205
Manufactures (yearly),	$20,084,237
Operatives, ...	18,109
Yearly Wages, . . .	$2,740,768
Farm Land (in acres), .	22,639,644
Farm-Land Values,	$135,793,602
Farm Products (yearly),	$51,729,611
Public Schools, Average Daily Attendance, . . .	208,657
Newspapers, ...	205
Latitude, . . .	33°50′ to 36°33′ N.
Longitude, . .	75°27′ to 84°20′ W.
Temperature, . . .	—5° to 107°
Mean Temperature (Raleigh),	59°

TEN CHIEF CITIES AND THEIR POPULATIONS. (Census of 1890.)

Wilmington, ...	20,056
Raleigh, ...	12,678
Charlotte, ...	11,557
Asheville, ...	10,235
Winston, ...	8,018
New Berne, ...	7,843
Durham, ...	5,485
Salisbury, ...	4,418
Concord, ...	4,339
Fayetteville, ...	4,222

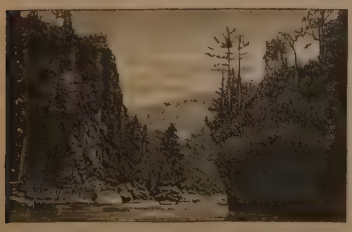
In the closing hours of the 15th century, six years after Columbus discovered America, Sebastian Cabot cruised southward nearly to Albemarle Sound; and in 1524, Verrazano sighted Cape Fear. The renowned Sir Walter Ralegh, Queen Elizabeth's favorite and King

MOREHEAD CITY: HOTEL, AND TEACHERS' ASSEMBLY.

James's victim, received in 1584 a charter designed to foster the colonization of America by Englishmen, and sent out various expeditions to this end. In 1585 the first English colony in all America entered North Carolina, settling on Roanoke Island. For a year 108 immigrants languished here, getting into such straits for food that they killed their mastiffs, and ate "Dogges' porridge." They gladly went back to England, in Sir Francis Drake's fleet, much fearing the hostile Indians, who destroyed a subsequent colony of Ralegh's, root and branch. The Roanoke men first bore back to England the custom of smoking tobacco, learned from the North-Carolina natives. In the last ill-fated colony on the island was born Virginia Dare, the first white native American. The second Ralegh colony appears to have been absorbed by the Croatan Indians, and a settlement of 2,000 people in Robeson County, claiming descent from the Indians, are also descendants of the "Lost Colony."

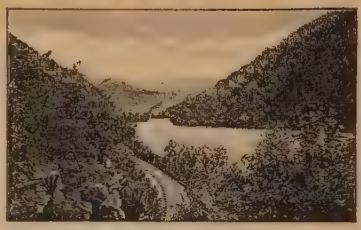
Secretary Povey, of Virginia, explored the Chowan country in 1623; and 30 years later Roger Green led a colony from the Nansemond to the Roanoke region. The next permanent settlers established themselves between Albemarle and Currituck Sounds, and lived almost as hermits, widely separated from each other. They were mostly Friends, and bought their land from Cistacanoe, the chief of the local Indians. Half of the population of North Carolina 70 years later were Friends. The first timothy grass came from Durant's Neck, in this cradle of North Carolina, where it grows wild. Timothy, a Friend, sent seeds of it to England, where the new forage-plant received his name.

In 1663 Charles II. granted the entire continent south of Virginia to 31° and west to the Pacific Ocean to eight lords-proprietors, who formed a liberal government, gave land freely to settlers (for quit-rents), made taxation an affair of the local legislature, and decreed full religious liberty. The latter novelty caused many Dissenters to settle here, coming especially from tithe-ridden Virginia. The complicated and cumbrous Fundamental Constitutions were drawn up in 1670, by John Locke, the philosopher, for the colony, but strongly resisted by the people and finally abandoned. Immigrants from Bermuda, Barbadoes and New England came to Albemarle (as the province was then called); the armed rebellion of the deposed Gov. Cary yielded to regular troops from Virginia; and the mountaineers defeated the savage Tuscarora Indians, and drove them to New York. In 1728, when North Carolina had 15,000 inhabitants, the King bought out seven of the lords-proprietors, South Carolina having much earlier cast off its allegiance to the proprietors, and become a Royal Province. Prior to 1746 considerable numbers of Scotch Highlanders settled in North Carolina; and between 1746 and 1776, many more, implicated in the rebellion of Prince Charles, were transported to America, and occupied the counties along and southwest of Cape-Fear River. About 3,000 Scotch-Irish people also left Ulster, and sought religious freedom in western Carolina. In 1712 a large colony of Swiss and Germans, under Baron de Graffenreid, settled along the Neuse and Trent Rivers, naming their chief town *New Berne.* The Moravians also bought 100,000 acres north of the Yadkin River, and built Salem as their chief town.



LINVILLE RIVER.

Many Virginians and Pennsylvanians migrated here, with Germans and Dutch, Swiss and Frenchmen. They came because North Carolina was a free country, and they kept it so. Tyrannical governors were deposed, church-rates refused, and extortionate crown-officers beaten. In 1771 many of

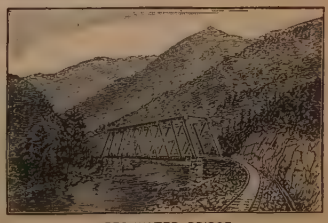


IN THE BLUE RIDGE.

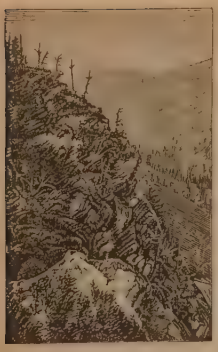
the people of Orange and the other western counties rose against taxation and other oppressions, calling themselves Regulators. Gov. Tryon defeated 2,000 of them in the battle of Alamance, where 100 men were killed and wounded. In May, 1775, the people of Mecklenburg declared their county independent of Britain. February 27, 1776, Cornwallis and Clinton lay with 100 vessels and seven regiments in the lower Cape-Fear River, but the local militia defeated 1,500 Highlanders marching to join the British force, at the battle of Moore's-Creek Bridge, and 8,000 patriots collecting on the Cape-Fear River, the British sailed away to Charleston. Meanwhile, many North-Carolinians had crossed the Alleghanies, founding the first settlements of Tennessee. Six regiments of these pioneers and of North-Carolina troops assembled at the Cowpens, in 1780, and after a perilous night-march, shattered Ferguson's British and Tory army on King's Mountain (S. C.). Bancroft says that this victory "changed the aspect of the war. The appearance of a numerous enemy from settlements beyond the mountains, whose very names had been unknown to the British, took Cornwallis by surprise." The splendid British cavalry of Col. Tarleton kept the Carolinas in continual alarm, until January, 1781, when Lieut.-Col. Washington inflicted a crushing defeat upon this force, at the Cowpens. In 1781 Gen. Greene made a masterly retreat of 200 miles into Virginia, hotly pursued by Lord Cornwallis. Returning to Guilford Court House, he was defeated there by a British force, but the victory cost the Royalists 600 men, and they retreated hastily to Wilmington, and thence to Virginia.

HICKORY-NUT GAP: CHIMNEY ROCK.

When the late civil war broke out, North Carolina remained true to the Union until all the surrounding States had seceded. When President Lincoln called on her to furnish her quota of troops for the Federal army, she promptly took sides with the South. The forts at Wilmington and Beaufort, the Charlotte Mint and the Fayetteville Arsenal had already been seized. In the struggle that ensued, the Old North State sent out more troops and lost more than any other in the South. Her levies included 89,344 volunteers, 18,583 conscripts, and 19,000 reserves and militiamen, embodied in 62 regiments and 15 battalions of infantry, six of cavalry and three of artillery. Over 50,000 of these troops died in the service, or were wounded in battle. Three months after the secession, Gen. Butler and Com. Stringham bombarded and took Forts Hatteras and Clark, commanding the entrance to Pamlico Sound. In February, 1862, Burnside and Goldsborough, with 16,000 troops and 100 ships, captured the six forts on Roanoke Island, with 40 guns and 2,000 men. Within a few weeks, the National forces occupied Edenton, Winton, Elizabeth City, New Berne, Morehead City, Beaufort, Washington, and Plymouth. Blockade-running flourished at Wilmington, where in a single year 300 steamships ran the gauntlet, with over 100,000 bales of cotton. In 1864, Admiral Porter and Gen. Butler failed in an attack on Fort Fisher, at the mouth of the river; but Porter and Terry stormed this fortress early in 1865, with a loss of 700 men. Soon afterward Schofield and the 23d Corps occupied Wilmington and Goldsborough. In March, 1865, Sherman's great National army entered North Carolina, on its way towards Richmond, fighting with Hardee at Averysborough, and



DEEP-WATER BRIDGE.



LINVILLE GORGE.

defeating Gen. Johnston's 26,000 Confederates at Bentonville, where 4,000 men were killed or wounded. Then the victors joined Schofield at Goldsborough. Meanwhile, Stoneman and the Fourth Corps had swept across from Nashville to Salisbury. April 13, 1865, Sherman marched into Raleigh, with the armies of the Ohio, the Cumberland and the Tennessee, Johnston's Confederates retreating toward Charlotte. The Union commander invited Gov. Vance and the civil officers of the State to return to their capital; and on the 26th Gen. Johnston, at Durham, surrendered to him the 36,817 Confederate soldiers of his army. The war left North Carolina bankrupt and prostrate, but in the subsequent years she has made marvellous advances in population, cultivated lands, improved farming methods, length of railways, and diversified industries.

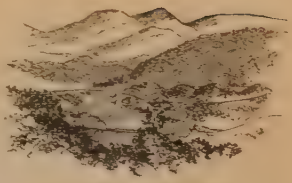
The Name, *Arx Carolina*, was given by the Huguenot colonists under Ribault and Laudonnière, landing south of Beaufort in 1562, to their little fortress, in honor of King Charles IX. of France; and this title gradually became attached to the country. In 1629, King Charles I. granted territory south of the Chesapeake to Sir Robert Heath, and named it after himself, *Carolana*. When the new charter of 1663 was given, by Charles II., this name became *Carolina*. There appears to be a just doubt as to which of these three kings the State was named for. The popular pet name is THE OLD NORTH STATE, referring to its place in the Carolinas. During the Civil War its people were called *Tar Heels*, in allusion to the prevailing tar industry of the lowland forests.

The Arms of North Carolina bear two robed female figures, Liberty and Ceres, the one with a wand and Phrygian cap, the other with a great horn of plenty, filled with the fruits of the earth. For 40 years the State troops have borne blue silken flags with this device on many a deadly field of battle.

The Governors of the State have been: Alex. Martin, 1789-92; Richard D. Spaight, 1792-5; Samuel Ashe, 1795-8; William R. Davie, 1798-9; Benjamin Williams, 1799-1802; James Turner, 1802-5; Nathaniel Alexander, 1805-7; Benjamin Williams, 1807-8; David Stone, 1808-10; Benjamin Smith, 1810-11; William Hawkins, 1811-14; William Miller, 1814-17; John Branch, 1817-20; Jesse Franklin, 1820-1; Gabriel Holmes, 1821-4; Hutchings G. Burton, 1824-7; James Iredell, 1827-8; John Owen, 1828-30; Montford Stokes, 1830-2; David L. Swain, 1832-5; Richard D. Spaight, 1835-7; Edward B. Dudley, 1837-41; John M. Morehead, 1841-5; William A. Graham, 1845-9; Charles Manly, 1849-51; David S. Reid, 1851-55; Thomas Bragg, 1855-59; John W. Ellis, 1859-61; Z. B. Vance, 1861-5; William W. Holden (provisional, 1865; Jonathan Worth, 1865-9; William W. Holden, 1869-71; Tod R. Caldwell, 1871-4; Curtis H. Brogden, 1874-7; Zebulon B. Vance, 1877-9; Thomas J. Jarvis, 1879-85; Alfred M. Scales, 1885-9; Daniel G. Fowle, 1889-91; and Thomas M. Holt, 1891-92.

Descriptive.—On its seaward front of 400 miles North Carolina is lined with long islands of sand, from half a mile to two miles wide, with dangerous angles at Cape Lookout and Cape Hatteras, and great shoals extending leagues out into the ocean, and through the sounds behind. Inside these sand-dunes open the broad sounds, Pamlico, 80 miles long by from ten to 30 miles wide, and 20 feet deep; Albemarle, 60 miles long by from four to 15 miles wide, with water nearly fresh; and Currituck, 50 miles long by from two to ten miles wide. Inland for 50 miles the country is low, and broken by swamps, lakes and inlets, and the broad estuaries of sluggish rivers. Currituck and Albemarle Sounds have no seaward openings, but discharge into Pamlico Sound, from which Oregon, Hatteras and Ocracoke

WILMINGTON: POST-OFFICE.



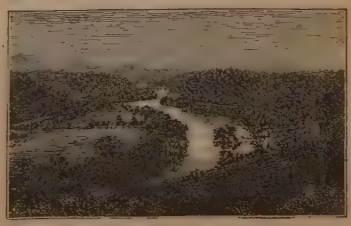
BLUE RIDGE: ROUND KNOB.

Inlets connect with the Atlantic. The Little Dismal Swamp, or Alligator Swamp, between Albemarle and Pamlico Sounds, the Great Dismal Swamp, and others cover 3,000,000 acres, with soil of remarkable richness, raising great crops when drained and reclaimed. The Dismal-Swamp Canal opens inland communication between Albemarle Sound and Chesapeake Bay. The chief harbors are at Wilmington, New Berne, Beaufort and Edenton. The Cape-Fear River, 300 miles long, is ascended by large vessels 34 miles, to Wilmington, and by sloops 120 miles, to Fayetteville. The Roanoke flows 250 miles, and may be ascended 120 miles, to Halifax. The continuous Pamlico and Tar Rivers give navigation for 95 miles, to Tarborough. The Neuse affords passage for boats for 120 miles, to near Goldsborough. The Chowan has 75 miles of navigable current. The Yadkin and Catawba find the sea through South Carolina; and the rivers beyond the Blue Ridge enter the Tennessee and Mississippi.

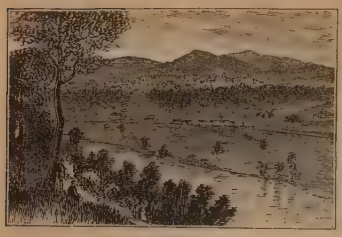
The fisheries are of increasing value, and hatcheries have been established for rock-fish, herring and shad. Over 100,000 barrels of fish are caught yearly, including mullet and blue-fish. The oyster-beds in the sounds have recently been mapped by Lieut. Winslow, U. S. N. A thousand North-Carolinians are engaged in oystering, securing 170,000 bushels yearly. The sand-bars between Pamlico Sound and the sea are ranged by hundreds of "bankers," or wild ponies, cast ashore from a wreck in the last century, and multiplying in freedom. Wild fowl abound around Pamlico and Albemarle.

PAINT ROCK.

Nearly half of the 20,000 square miles of the lowlands lies in the shore-belt, and the rest grows more hilly as it approaches the west. Farther inland comes the middle region, 20,000 square miles of hills and uplands, with the long curving water-sheds of the rivers, and their wide valleys. Farther west lies the Piedmont plateau, from 60 to 75 miles wide, with frequent mountain-spurs, and cut by the valleys of the Yadkin, Catawba and Broad Rivers. The Blue Ridge springs up from the Piedmont region, traversing the entire State, northeast and southwest, with a ragged and broken escarpment facing the east, and gentler western slopes, robed with heavy forests. The mountain land, in the extreme west, includes the huge Blue Ridge on the east, and on the west the Alleghany ("Endless") Mountains, mainly included in the Great Smoky Range, whose continuations along the border are the Unaka, Bald, Iron and Stone Ranges. This noble mountain-chain is cut deep by the gorges of the westward-flowing rivers, the Little Tennessee, French Broad, and others. In the Smokies are 23 of North Carolina's 57 peaks above 6,000 feet high, including Clingman's Dome (6,660 feet), Mount Guyot (Bullhead), 6,636; and Mount Love, 6,443. In these ranges and the connecting cross-chains occur the loftiest peaks in the Atlantic States. The trough between the Blue Ridge and the Alleghanies is 200 miles long, and from 15 to 50 miles wide, covering 6,000 square miles. In the north, Yellow Mountain stretches across it, from the Grandfather, the highest Blue-Ridge peak (5,897 feet) to Roan (6,306 feet), in the Smokies, with the high plateau of Watauga on the north, and on the south a vast valley, in whose purple mists lie 13 counties. Southwest of Yellow, beyond this deep Nolechucky Valley, Black Mountain crosses the trough for 20 miles, with 18



THE FRENCH BROAD RIVER, AT ASHEVILLE.



ASHEVILLE.

peaks above 6,000 feet high, including Mount Mitchell, the sovereign summit east of the Rocky Mountains, 6,711 feet above the sea. This lonely crest is hallowed by the grave of Prof. Elisha Mitchell, of the University of North Carolina, who lost his life here, in 1857, while engaged in measuring the mountain height. A bronze monument was erected over it in 1888. In this sierra are Balsam Cone, 6,671 feet high; Potato Top, 6,393; and Bowlen's Pyramid, 6,348. Southwest of the range lies the lovely valley of the French Broad, bounded by the Newfound Range. Farther southwest, across the valley of the Big Pigeon, towers the Balsam Range, 45 miles long, with 15 peaks of above 6,000 feet. Among its noblest crests are the Great Divide, 6,425 feet high; Junaluska, 6,278; and Devil's Court-House, 6,049. Towards the southwestern corner of the State, the great valley is barred off again by the Cowee, Nantihala and Valley-River Ranges, in which the Little Tennessee and its affluents take their rise. A great spur running northeast from the Balsams ends in Mount Pisgah, 5,712 feet high, and one of the most famous landmarks of the Carolinas.

In this "land of the sky" occur many lovely glens and fertile coves, surrounded with wooded ridges and profound forests, and occupied by the quaint hamlets and lonely farms of the mountaineers. Among the heights are the loftiest villages east of Colorado; Boone, 3,242 feet high; Jefferson, 2,940; Burnsville, 2,840; Waynesville, 2,756; and scores of others higher than Bethlehem of New Hampshire. The favorite summer-resorts are Asheville, in the French-Broad valley; Hot Springs, close to the Alleghanies; Waynesville, under the shadow of the Balsams; Cæsar's Head, a hotel 3,500 feet high, on Cæsar's-Head Mountain; Haywood White Sulphur Springs, near the Balsams; Sparkling Catawba Springs, with blue and white sulphur and chalybeate waters; Arden Park, with its hotel and mineral waters; Glen Alpine, 13 miles from Morganton, with a vast mountain-view from above its hotel, and tonic and alterative lithia springs; and Cloudland Hotel, 6,250 feet high, near the top of Roan Mountain, on a flowery plateau enwalled by dark balsam woods, famous for the cure of hay-fever. Among the natural beauties are the Linville Gorge, where an angry river bursts through the Linville Mountains; the bleak mountain-crowning Table Rock; the famous Hickory-Nut Gap, nine miles long, on the Rocky Broad; the Painted Rocks and the Chimnies, on the French Broad; Whiteside Mountain, with a curving cliff of white rock two miles long and 1,800 feet high; and the famous Pilot Mountain, in Surrey County.

Among the most charming localities in this country is the vicinity of Asheville, where is situated the famous Battery-Park Hotel, one of the most perfect resorts on the continent. The surrounding region is as picturesque as can be found anywhere, and the hotel has been admirably adapted to such a romantic spot. It is, indeed, a modern paradise among the mountains, charming in its many gables, its airy verandas and its delightfully picturesque views. The hotel is owned by Col. F. Coxe, of Philadelphia, and is managed by J. B. Steele. It was built in 1886, and enlarged in 1887 and 1888, and again in 1890. The rooms for guests are large and well-arranged. There are billiard-rooms for both ladies and gentlemen, a spacious ball-room, verandas, promenades, parlors and reception rooms, and airy and ample dining rooms. All of the guest-rooms have outward looks, and there is a picturesque view from every window.

ASHEVILLE: BATTERY-PARK HOTEL.

The hotel is easily accessible from all points, and is just 24 hours from New York. The mild and even climate of Asheville makes the Battery-Park Hotel a delightful place of resort either in summer or winter. The rides and drives for miles are of the most romantic description; and the city of Asheville, with its population of about 10,000, is composed chiefly of the lovely homes of the well-to-do people from many States who spend the whole or part of their time here. It is here, too, that George Vanderbilt has acquired about 6,000 acres of land, and is preparing a baronial estate.

TRYON MOUNTAIN.

Since the war, thousands of Northerners afflicted with pulmonary diseases have found relief in the Blue Ridge, whose grand scenery of cliffs and valleys and waterfalls may be enjoyed in the pleasant summer climate. The southern-middle sand-hills, among the odors of the long-leaved pines, also have found favor with sufferers of this class. The summer-resorts along the coast, with their hotels and sea-bathing, are mainly occupied by Carolinians.

North Carolina of the sixteenth century lay hidden under noble forests, of almost tropical richness and variety, and thousands of miles still thus remain, and are increasing in value. The swampy alluvial lands and black peaty soils of the tide-water counties have immense pineries, with leagues of cypresses and junipers. Farther inland grow myriads of oaks, large chestnuts and poplars, and noble hickories, mingling along the mountains with hemlocks and white pines. Of late years the mountain-forests have been attacked on all sides, and lumber is exported in large quantities. The Piney Woods cover a level belt of sandy barrens, from 30 to 80 miles wide, running southwest across the State, from Virginia, and overshadowed by thick-foliaged long-leaved pines. Two thirds of the turpentine and rosin, pitch and tar produced in the United States comes from North Carolina, and great quantities are shipped from Wilmington.

HOT SPRINGS: THE CASCADES.

The Climates of North Carolina are those of Sicily and Upper Canada. The lowlands have an Italian and subtropical temperature, warm and humid, with prevailing southwest winds, and winter and summer means of 46° and 79°. The middle region has almost continuous northwest winds, with winters averaging 44° and summers of 77°. The mountain-country has the climate of New England, averaging 52°, sometimes falling in winter to zero, and in summer averaging 70°. The mean yearly rainfall is 60 inches in the east, 45 in the middle, and 58 among the mountains, evenly distributed throughout the seasons. This is nearly double the rainfall of France and England, yet the air is dry and clear, and grapes and cotton grow successfully. The climate, aside from the malarial lowlands, is healthy, and the death-rate is low.

Agriculture has been advanced of late years by the introduction of intensive farming, labor-saving machinery, the increase of grass area, and the improvement of breeds of live-stock. The Agricultural Department and Experiment Station have given special attention also to fertilizers, improving their quality.

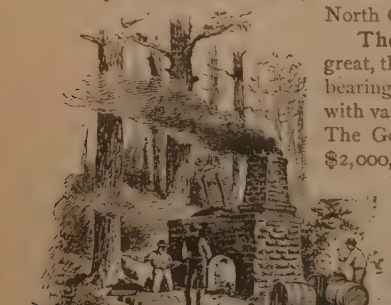
MEDOC: MEDOC VINEYARD.

The farms produce yearly 36,000,000 bushels of corn, 5,000,000 of wheat, 5,000,000 of oats, 5,000,000 of sweet potatoes, 400,000 bales of cotton (worth $18,000,000), 35,000,000 pounds of tobacco, and 6,000,000 pounds of rice, with large quantities of hay, honey and butter. North Carolina is the first of the States in the value of its medicinal herbs, mainly ginseng, spikenard, and hellebore, shipped from Statesville.

The Bright-Tobacco Belt covers the northern counties, and yields the greater part of the yellow tobacco (or gold leaf) of America, singularly free from nicotine and nitrogen, and commanding the highest prices.

The peanut crop exceeds 300,000 bushels yearly, at 50 bushels to the acre, the chief market being at Wilmington. The oil derived from peanuts is valuable for table use, lubricating and burning in lamps.

Grapes grow abundantly on the lowlands, and their cultivation occupies increasing areas. The Scuppernong grape, native to North Carolina, is large and luscious, and produces an excellent wine. The Catawba and Isabella grapes are also successfully raised, and originated here. The famous Medoc Vineyard, established in 1835, the largest Scuppernong vineyard in the world, is at Medoc, in Halifax County, near the Piedmont Belt, and some 1,500 to 2,000 feet above tide-water. The soil and climate of this immediate section is exceptionally adapted for the cultivation of the Scuppernong, the only known vine that has withstood the insect phylloxera, being of long life, and practically "fire-proof." Some vines are a foot in diameter. At this vineyard a crop failure is unknown, and the sales of the wines and brandies, averaging $40,000 a year, are made throughout the Union. These wines have been awarded several prizes. The property includes about 1,000 acres, 100 of which are in grapes, and 400 in a high state of cultivation; and the wine-vaults, with a capacity of 150,000 gallons, were constructed with special reference to the aging of the wines and their security against fire. This whole property is owned by the Medoc Vineyard Company, a corporation with a paid-in capital of $200,000, which bought it from the heirs of the late C. W. Garrett, who developed this notable vineyard. The Medoc farm is famous for its crops of tobacco, cotton, and corn, and forms one of the most delightful spots in North Carolina.



A TURPENTINE STILL.

MAKING TAR.

The Mineral Resources of North Carolina are great, though as yet but imperfectly developed. The gold-bearing region extends from Halifax to Cherokee County, with valuable placers and veins, especially in the midlands. The Gold-Hill Mine, near Salisbury, has produced over $2,000,000 in bullion; and the output of the State has exceeded $20,000,000. The old United-States Mint, at Charlotte, is now an assay office. Silver-mines occur in the Salisbury region. North Carolina produces nearly half the smelted and rolled zinc of the Republic. Bituminous and semi-bituminous coal occurs in large deposits on Deep River. It is valuable for smelting and gas-making, but has been only slightly developed. The Dan-River coal-field also extends 32 miles into the State. Hematite and magnetic iron-ores have been mined in the mountains for over a century, and are now used in the Bessemer furnaces of Pennsylvania. Copper occurs chiefly in the middle and west, and is mined south of the Balsam Range. Copperas, cobalt, plumbago, antimony, arsenic, nickel, lead and tin are also found in the hills. Much of the mica used in this country is mined in the mountains of North Carolina, in Mitchell, Macon and Yancey Counties.

The largest existing mines of corundum (emery), much used in the arts, are in Macon County. White and rose-colored marble, fine gray granite, millstones, whetstones, grindstones, potters' clay, fire-clay, talc, manganese, asbestos, and barytes, also occur. Soapstone is quarried in Moore; porphyry, near Jones Falls; red sandstone, at Waynesborough, Sanford and Egypt; and gray sandstone at Durham. Phosphate rock occurs in 150 beds, between the Neuse and South Carolina, in a belt from 15 to 20 miles wide, parallel to the coast. It is valuable as a fertilizer.

CHAPEL HILL: UNIVERSITY OF NORTH CAROLINA — MEMORIAL HALL.

The Government includes a governor and six executive officers, elected by the people every four years; the General Assembly, of 50 senators and 120 representatives, elected and meeting every two years; the elective Supreme Court of five justices, and Superior Court of 12 judges; and the county justices of the peace. The State House is a fine old granite building, with dome and colonnades, standing in a six-acre park in the centre of Raleigh. Among other Commonwealth structures are the Governor's Mansion, the Agricultural Building, the Supreme Court, and the State Geological Museum. The Penitentiary, at Raleigh, has 184 convicts within its walls, and 1,300 working outside, mainly in the construction of railroads. The Western Insane Asylum, at Morganton, cost $450,000, and contains 420 patients; the Asylum at Raleigh has 300; and the Eastern Asylum, near Goldsborough, has 200 colored patients. There are separate asylums at Raleigh for the white blind, deaf and dumb persons (135), and for the negroes (53). The Oxford Orphan Asylum, conducted by the Masons, receives a State grant.

The National Cemetery at Salisbury contains the graves of 12,126 Federal soldiers, who died here in captivity. The National Cemetery at New Berne has 3,254 graves. The National Cemetery at Wilmington has 2,291.

DAVIDSON COLLEGE.

Education was of slow growth in colonial North Carolina, and most of the youth of the better classes attended the English universities, or had private tutors. After the great Scotch-Irish immigration, in 1736, the incoming Presbyterians founded numerous classical schools. For half a century, the leading educational forces in North Carolina came from Princeton College. Education is now backward, owing to the loss of the school-fund in the war; but 600,000 acres of public swamp-lands have been devoted to this purpose. White teachers are drilled one month in each summer at the Teachers' Assembly, with a large new building at the sea-side summer-resort of Morehead City. The common schools were closed from 1865 to 1870, for lack of money; and the Peabody Fund was of aid in this crisis, and since. The State College of Agriculture and the Mechanic Arts was opened at Raleigh in 1880.

The University of North Carolina was incorporated in 1789; endowed with large tracts of Tennessee land; and opened in 1795, at Chapel Hill, 28 miles westward of Raleigh. When the Secession War broke out, it had 500 students; and this was the only Southern university kept open throughout those terrible years. In 1868, Gov. David L. Swain, its President since 1835, was displaced, and a new faculty came into power; but the University closed its doors from 1870 to 1875, having lost touch with the people. Ex-State-Treasurer Kemp P. Battle became President in 1876, and better days dawned on the venerable institution. It has 17 instructors and 200 students, a library of 25,000 volumes, and valuable museums. The University campus includes 50 acres of fine old oaks and hickories, with 500 acres of forest adjacent. Here stand the old east (1795) and west (1826) buildings and the new east (1889) and west (1859) buildings, and the south building (1814), used mainly as

dormitories; Person Hall (1796), the chemical laboratory and industrial museum; Smith Hall (1852), with the University library and laboratories; Gerrard Hall (1827), the chapel; Gymnasium Hall (1835); and the University Memorial Hall (1885), a noble auditorium, on whose walls are tablets bearing the names of the University's eminent officers and graduates, and her sons slain in the Secession War. Among the students of the University were President James K. Polk, Vice-President Wm. R. King, Senators Thomas H. Benton, Zebulon M. Vance, Frank P. Blair, and hundreds of Southern governors, senators, cabinet officers, diplomats and divines. Over 4,000 North Carolinians have been educated here.

Wake Forest College, a famous Baptist school, was opened in 1834, 16 miles from Raleigh, in an oak forest, and became a college four years later. It has dormitory, library, and laboratory buildings, and Wingate Memorial Hall. There are eleven professors and 225 students; and the library contains 15,000 volumes. Davidson College was founded by the Presbyterians in 1837, 23 miles north of Charlotte. It has 13 buildings, eight professors, and 120 students, with libraries of 12,000 volumes. Trinity College grew out of a Methodist academy of 1838, and has 120 students. The Catawba Valley is occupied by German Lutherans, as distinct in their language and customs as the Pennsylvania Dutch. This sect conducts North-Carolina, Concordia and Gaston Colleges. The most celebrated academy for boys is the Bingham School, founded in 1793, and now near Mebane, 50 miles west of Raleigh. It has 220 students, with a military organization under an officer detailed from the United-States army.

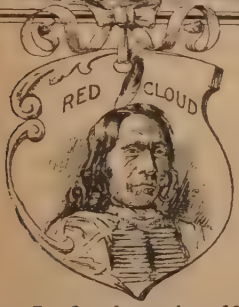
MOUNT MITCHELL.

The colored people have Shaw University, at Raleigh, with college, scientific, normal, theological, medical and industrial departments; Biddle University, at Charlotte; and other advanced institutions, in which over 2,500 negro boys and girls are being educated, including some from Africa and the West Indies. There are colored theological schools at Raleigh (Episcopal and Baptist) and Charlotte (Presbyterian); and white schools at Conover (Lutheran) and Trinity (Methodist-Episcopal South), with 270 students. The law schools for the whites are at Chapel Hill and Greensborough; and a medical school for the colored people is at Raleigh.

Chief Cities. — Raleigh is the pleasant capital city, on high ground near the centre of the State, with several good public buildings. Wilmington, on the Cape-Fear, is the metropolis of the State, and its chief port, with a large foreign commerce, and steamship lines to New York, Philadelphia and Baltimore. Here is the headquarters of the Atlantic Coast Line. It is a leading market for naval stores. New Berne has a large trade in shipping early vegetables and naval stores to the North, with steamship lines to Norfolk, Baltimore and New York. Asheville and Charlotte are growing inland cities. Durham is one of the greatest tobacco-manufacturing points in the world, with a dozen factories and snuff-mills, tobacco-cure works, tobacco-dust-fertilizer mills, and a cotton-mill whose product is made into tobacco bags. One company makes 250,000,000 cigarettes a year.

Manufacturing has developed largely since 1880, reaching $25,000,000 a year, including cotton goods, $3,000,000; tobacco, $2,000,000; and turpentine and tar, $2,000,000.

Railroads began with the Wilmington & Weldon and the Raleigh and Gaston lines, in 1843, the Charlotte & Columbia line dating from 1852. The State is now served by several important and efficient routes, reaching the sea-board at Edenton, New Berne, Beaufort and Wilmington, and crossing the Alleghany Mountains by the French-Broad Valley. The great through route of the Atlantic Coast Line runs down across the Carolinas, on its way between New York and Florida; and is the avenue of a continually increasing volume of travel, favored by the most sumptuous accommodations. Goldsborough, Charlotte, and Greensborough are important railway centres.



HISTORY.

North Dakota came to the United States as a part of the French Province of Louisiana, bought from Napoleon in 1803. It belonged to the District of Louisiana in 1804; to the Territory of Louisiana in 1805; and to the Territory of Missouri in 1812. In 1834 the section of North Dakota east of the Missouri and White-Earth Rivers became a part of Michigan Territory, and the rest lay in the Indian Country. Two years later, the Michigan district of North Dakota became a part of Wisconsin Territory, and after another two years it was handed over to Iowa Territory, in which it remained after the State of Iowa entered the Republic. In 1849 it was joined to Minnesota Territory. The western section became a part of Nebraska Territory in 1854. At the erection of Minnesota into a State, the region west of it, to the Missouri and White-Earth Rivers, became the Territory of Minnesota. In 1861 this last political division became obsolete, and the Territory of Dakota was formed, including North and South Dakota, and large parts of Montana and Wyoming. The last two were set apart to Idaho in 1863, and in part retroceded in 1864. In 1868 and 1873 these divisions were again taken away, and Dakota remained.

For many years much of this region was known as the Mandan Country, from the tribe of Indians dwelling near the site of Bismarck. The Sioux, or Dakotas, checked at some remote period in their eastward march by the fiery Algonquins, became paramount in this domain. The first recorded settlement in North Dakota was made by a French trader, in 1780, at Pembina. Here also Lord Selkirk's Scottish colony, planted under a grant from the Hudson-Bay Company, dwelt from 1812 to 1823, when it was found to be on American soil, and moved northward into Manitoba. Up to 1875 there were fewer than 1,000 whites in all North Dakota, but after that time a strong flood of immigration set in, favored by the

STATISTICS.

Settled at	Pembina.
Settled in	1780
Founded by	French Canadians.
Admitted to the U. S.,	Nov. 3, 1889
Population in 1880,	36,909
White,	182,123
Colored,	596
American-born,	101,258
Males,	101,590
Females,	81,129
In 1890 (U. S. Census),	182,719
Population to the square mile,	2.58
Voting Population (1890),	55,959
Vote for Harrison (1892),	17,519
Vote for Weaver (1892),	17,700
Vote for Bidwell (1892),	899
Net State Debt,	$703,769
Assessed Property,	$88,203,054
Area (square miles),	70,795
U. S. Representatives,	1
Militia (Disciplined),	545
Counties,	43
Post-Offices,	537
Railroads (miles),	2,528
Manufactured (yearly),	$5,128,107
Operatives,	1,847
Yearly Wages,	$1,002,881
Farm Land (in acres),	7,660,333
Farm Land (assessed valuation),	$48,527,869
Farm Products (yearly)	$21,264,938
Public Schools, Average. Daily Attendance,	32,305
Newspapers,	139
Latitude,	46° to 49° N.
Longitude,	96° 30′ to 104° 5′ W.
Temperature,	49° to 107°
Mean Temperature(Bismarck),	39.4°

TEN CHIEF PLACES AND THEIR POPULATIONS. (Census of 1890.)

Fargo,	5,664
Grand Forks,	4,979
Jamestown,	2,296
Bismarck,	2,186
Grafton,	1,594
Wahpeton,	1,510
Mandan,	1,328
Valley City,	1,089
Lisbon,	933
Devil's Lake,	846

TURTLE MOUNTAINS: A SOD HOUSE.

advance of the railways. The centres of Dakota's population, Fargo and Bismarck in the north, and Yankton in the south, were separated by almost impassable and uninhabited areas, with no railway intercommunication. This diversity of interests led to sharp contests between the two sections, and in the end resulted in their separation. Among the people of North Dakota are many thousands of Americanized Canadians, crossing from Manitoba in search of happier conditions of life. There are also great numbers of Scandinavians and Germans, and small colonies of Russian Mennonites, Polish Jews, Roumelian Turks and Icelanders.

The Name Dakota (pronounced *Dah-ko-tah*) means "Allied," or joined together in friendly compact, and was (and is) applied to themselves by the great Indian nation popularly known as the Sioux. Their enemies, the Ojibways, called them *Nadowaysioux*, "The Foemen," and the early French traders caught the last syllable of this word, and always spoke of them as Sioux. North Dakota is sometimes spoken of as THE SIOUX STATE, or the *Land of the Dakotas.*

The Arms of North Dakota bear a tree, with a half-circle of 42 stars in its foliage, and wheat-sheaves and farm-tools below, and on one side an Indian on horseback pursuing a buffalo towards the setting sun. The motto is LIBERTY AND UNION, NOW AND FOREVER, ONE AND INSEPARABLE.

The Governors of Dakota Territory were: William Jaynes, 1861–3; Newton Edmunds, 1863–6; Andrew J. Faulk, 1866–9; John A. Burbank, 1869–74; John L. Pennington, 1874–8; Wm. A. Howard, 1878–80; N. G. Ordway, 1880–4; Gilbert A. Pierce, 1884–7; Louis K. Church, 1887–9; Arthur C. Mellette, 1889. State governors: John Miller, 1890; and A. H. Burke, 1891–3.

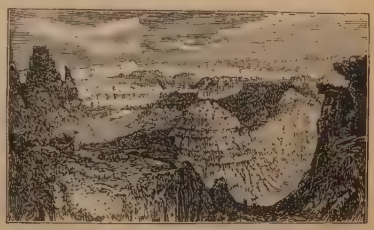
FARGO: CASS-COUNTY COURT-HOUSE.

Descriptive.—The sluggish, narrow and devious Red River forms almost the entire eastern boundary, and is traversed by steamboats and bordered by railways. Vast quantities of pine-logs are floated down from the Otter-Tail and Red-Lake pineries to the saw-mills at Grand Forks. This region is the garden of the State, and nearly always produces rich harvests, even when some other localities are injured by droughts. Several of the bonanza wheat-farms of the Red-River Valley are from 5,000 to 15,000 acres each in area, with a large number above 1,000 acres. The famous Dalrymple farm covers 75,000 acres; and the domains of the Grandins are even more extensive. The most thorough system governs these estates; and their large forces of men are organized into divisions, each with its superintendent and foreman and buildings, and all reporting to a general manager. With gang-plows, seeders, self-binding harvesters, steam-threshers and other modern implements, the cost of raising wheat has been reduced to 35 cents a bushel. The wheat of North Dakota is unexcelled in quality, and has been cultivated on a broad and cheap scale. The Red-River region is a vast level deposit of 10,000 square miles of the richest black loam, from two to six feet deep, broken only by occasional small "slews" (sloughs), and dotted with little hamlets. Three fourths of this precious lake-basin lies in North Dakota, forming six counties, and containing half of the wealth of the State. The Sheyenne and James Valleys are rolling prairies of brown loam, bounded by low hills, and dotted with small ponds. West of the Red River the soil is gently rolling, somewhat sandy, and more dry. The Coteau des Prairies begins near the James River, and runs over into Minnesota,

BISMARCK: NORTHERN PACIFIC BRIDGE.

with some timber and vegetation, and many alkaline pools. It is 200 miles long, from 15 to 20 miles wide, and from 1,000 to 2,000 feet above the sea.

The Plateau du Coteau du Missouri is a great grassy table-land entering the State from Manitoba, and running southward between the Missouri and James Rivers, beginning at 2,000 feet above the sea, and falling away on the south. It is treeless and almost without large vegetation, except along the streams. Masses of bowlders crown the myriads of strange-shaped hills and ridges, which give the Coteau the appearance of a stormy sea changed to soil when at its wildest fury. The crests are barren, but the slopes of good brown loam are valuable for wheat or for grazing. The Coteau covers 30,000 square miles, and is sparsely settled. It follows around the great bend of the Missouri, 400 miles long and 80 miles wide, and as seen from the distant prairies forms a deep blue line upon the horizon. The Missouri slope sinks away in waves of rich soil from the crest of the Coteau to the level of the great river, 250 feet below. The country west of the Missouri slope is diversified by strange conical buttes, capped with sandstone, grassy hills, and high bluffs, broken by open veins of brown coal. But few settlers have moved into this region.



PYRAMID PARK:
THE BAD LANDS OF THE LITTLE MISSOURI.

The Bad Lands of the Little Missouri cover an area 50 miles long and 30 miles wide, with huge domes and pyramids, spires and towers, and statues of vividly colored clays and rocks, rising by thousands from the grassy glens, amid which, and sheltered by these grotesque buttes, myriads of cattle and sheep graze all the year round. Great coal-beds have been burning here for centuries, turning the clay hills into terra-cotta; and in places the fires still exist. Medora is the metropolis of this weird region. The sinister title of this country is translated from a part of the old French name for it, *Mauvaises Terres pour Traverser*, which referred not to the quality of the soil, but to the difficulty of travelling through this fantastic land.

Devil's Lake, which the Indians called *Minnewaukan* (Spirit Water) lies in the north, and is 55 miles long, with an extreme width of six miles. The well-wooded and gently sloping shores extend for 280 miles, with many a fine promontory, enshrining weird old Sioux legends. A steamboat makes daily trips from the prosperous new grain and live-stock city of Devil's Lake to Minnewaukan and the Government post of Fort Totten, crossing an inland sea as green and about one fifth as salt as the ocean, and without an outlet. Stump Lake winds for 13 miles between abrupt and wooded shores. There are many other lakes in the north and east; and lonely buttes rise high over the unpopulated plains. The swirling and turbulent Missouri River bends around through a great part of the State, affording steamboat navigation for 1,200 miles above Bismarck, to Fort Benton, and also downward to the Mississippi. The river-boats carry from 60 to 200 tons of freight each, and draw from two to four feet of water. They extricate themselves from the numberless sand-bars by climbing up on poles, ingeniously arranged for the purpose.

The Turtle Mountains come in on the north from Manitoba, and extend over 800 square miles, descending to the south in gentle rolls, and largely covered with dense forests of oaks, elms and birches, cut by ravines and sparkling streams, and haunted by great game. The chief summits, Butte St. Paul and Bear Butte, rise 2,300 feet above the sea. The broad black-loamed surrounding prairie is inhabited by Canadians and half-breeds, who raise good

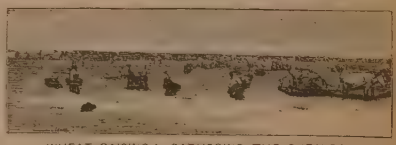
FORT TOTTEN AND DEVIL'S LAKE.

WHEAT-RAISING: PREPARING FOR PLANTING.

crops of grain. The entire western part of the State, including nearly half of its area, is underlaid with inexhaustible deposits of lignite, or soft brown coal, valuable for domestic use and for gas-making. The mines at Dickinson and Burlington, Minot and Sims ship yearly many thousand tons, and every ranchman has his own little surface mine, for home use. The coal area extends from the Turtle Mountains to the Black Hills, the chief developments being along the Northern Pacific Railroad at Bismarck.

Farming.—The Dakotas lead all the States in the quantity of wheat produced, raising yearly 60,000,000 bushels of "No. 1 Hard." The quality of the wheat is unrivalled. It is dry, and rich in albuminoids, and will make more bread — and more nourishing bread — to the bushel, than any other wheat. The Department of Agriculture declares that it has "a flavor richer than any other." Winter wheat is not raised, the crops including only the hard spring varieties. This immense product rules the markets of the world. It commands higher prices than any other wheat, and is raised at less expense, from cheap land. The cost of transportation from Dakota to Buffalo is but 15 cents a bushel, using the water-route from Duluth. The flouring-mills of North Dakota ship their surplus product to London, where their agent secures for it a higher price than is given for any other grade of flour. The climate and soil are well adapted to raising corn and oats, barley and rye, and the best of potatoes. The nutritious grasses formerly nourished many millions of buffalo. About 7,000 tons of buffalo-bones, representing 260,000 animals, have been shipped from Minot, and 30 times that number from the other railway stations. The State now has nearly 400,000 sheep. There is naturally very little timber, except along the rivers, but thousands of farmers have been planting groves and orchards, and the prairies are now diversified with growing forests. In the two Dakotas 50,000,000 trees have been planted. In 1891 North Dakota yielded 65,000,000 bushels of wheat, and 18,000,000 of oats.

WHEAT-RAISING: SOWING WHEAT.



WHEAT-RAISING: GATHERING THE SHEAVES.

The Climate is influenced by the Chinook winds, from the Pacific, and the entire State lies below the line of 50° of mean yearly temperature. The summers have hot days and cool nights, tempered by prairie breezes; and the winters are clear, crisp and sunny, with little snow, but occasional fierce northern blizzards.

Government.—The State Capitol (now only partly built) is a substantial brick edifice on a commanding elevation near Bismarck, and contains the State Library and historical collections. The National Guard includes the First Regiment of Infantry (seven companies and a band), and a battery and a troop of cavalry. The Asylum for the Insane, at Jamestown, cost $500,000, and includes also the Institute for the Feeble-Minded. The Deaf and Dumb Asylum is at Devil's Lake; the Blind Asylum, in Pembina County; and the Soldiers' Home, at Lisbon. The Penitentiary is at Bismarck; and the Reform School, at Mandan. The United-States military posts are Forts Abraham Lincoln, Buford, Totten, Pembina and Yates, occupied by 700 soldiers. The Indian reservations are at Devil's Lake, with 1,000 Cut-Head Sioux; Turtle Mountain, with 1,400 Chippewas and half-breeds; Fort Berthold, with 500 Gros Ventres, 450 Arickarees and 250

WHEAT-RAISING: THRESHING.

Mandans; and part of the Standing-Rock Sioux Reservation. Religious, educational and industrial agencies are continually at work among these savages, endeavoring to change them into peaceful and industrious farmers.

NEAR CASSELTON.

Education.—The public-schools have 2,000 teachers, and cost $500,000 a year. The value of the school-property is about $1,300,000. The University of North Dakota, opened near Grand Forks in 1884, provides free tuition in the arts and sciences for young people of the State. The cost of a high education is probably less than at any similar institution in the world. The School of Mines is attached to this institution. The University has 36 students, besides 180 in the normal and preparatory departments. The Congregationalists have a college at Fargo; the Presbyterians, at Jamestown; the Baptists, at Tower City; and there are also Lutheran and Methodist colleges. The normal schools are at Valley City and Mayville; the Scientific School, at Wahpeton; the School of Forestry; the Agricultural College at Fargo; and the Industrial School at Ellendale.

Chief Cities.—Bismarck, the capital, slopes from the low encircling hills down to the broad brown Missouri, which is here crossed by the Northern Pacific Railroad, on a million-dollar steel bridge; and the Great Northern Railway also crosses here. It has a valuable steamboat commerce, and is the headquarters of the Missouri-River Transportation Company and the northern terminus of the Milwaukee Railway system. Bismarck began in 1872, in a region which is even yet thinly settled. Mandan, on the other side of the river, has railway shops and elevators. Fargo, where the Northern Pacific crosses the Red River, is one of the chief financial and commercial cities of North Dakota, with a variety of profitable manufactures.

GRAND FORKS: UNIVERSITY OF NORTH DAKOTA.

Farther down the Red River are the busy flour and lumber mills and the public buildings of Grand Forks, where the Great Northern Railway crosses the stream. The Red-Lake River and the Red River here form the "Grand Forks," once so puzzling to the *voyageurs*. Pembina, on the Red River, and close to the Manitoba frontier, was settled by Lord Selkirk's Scottish colonists, after they had been expelled from Winnipeg by the French-Canadians. This region is mostly occupied by Canadians, Scotch and French half-breeds, Norwegians and Icelanders, and produces in its "nine months winter and three months late-in-the-fall" copious crops of wheat. Jamestown is in the wonderful artesian belt of the James-River valley, at the intersection of several railways, and with a large trade. Valley City, Devil's Lake, Casselton, Wahpeton, Lisbon and La Moure are important towns. Dazey is named for Charles Turner Dazey, the poet.

The active immigration induced by the Canadian Pacific Railway into Manitoba since 1883-4 resulted fortunately for the neighboring American State. The immigrants found that the cost of living was very high, and therefore thousands of them drifted southward across the border, where more favorable conditions prevailed, and took out papers as citizens of the United States. There is a strong general sentiment in favor of reciprocity of trade between North Dakota, Minnesota and Manitoba.

BISMARCK: THE CAPITAL OF NORTH DAKOTA.

The Railway System of North Dakota began in 1872, when the Northern Pacific

line crossed the Red River of the North. This route now traverses the entire State, from east to west, nearly on the 47th parallel; and has several branches diverging on either side. The Great Northern Railway crosses the State near the 48th parallel, from Grand Forks to Devil's Lake, and thence to Fort Buford, on the Upper Missouri and the Montana frontier. It has lines following the American section of the famous Red-River Valley, on both the eastern and western sides; and branches running into the Turtle-Mountain country, and in various other directions. The Chicago, Milwaukee & St.-Paul system controls several lines in the southeast. Steamboats ply on the Red River of the North, from Grand Forks, Fargo, and other points down to Winnipeg and the towns of Manitoba. The steamboats on the Missouri River have a season of navigation lasting for eight months every year.

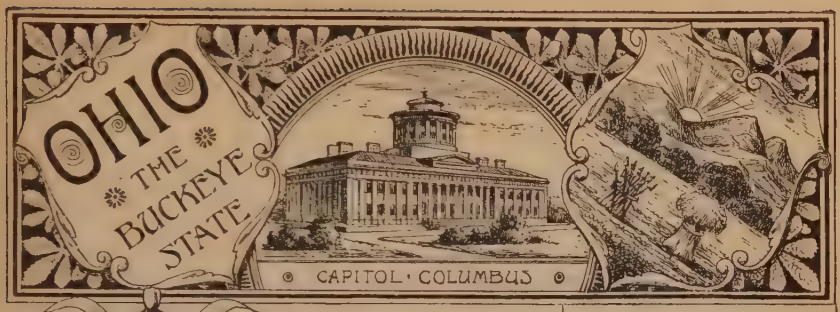
The transformation of North Dakota from a desolation, occupied only by Indians and buffalo, to an enterprising modern State, covered with farms and dotted with villages, has rendered necessary a large transference of capital from eastern sources. From this circumstance, several active financial institutions have arisen, inside the frontiers of the new State; and prominent among these is the Mortgage Bank and Investment Company, established at Fargo in 1886, and incorporated in 1887. This corporation pays liberal dividends, usually amounting to at least ten per cent. a year, and paid quarterly by draft on New York. There are more than 1,000 shareholders, including professional and business men in all parts of the country. The paid-in capital is over $300,000, with a growing surplus and increasing deposits. The bank has from its foundation had E. Ashley Mears as president, and William B. Mears as cashier. It jointly owns and occupies with the National Bank of North Dakota, the handsomest bank building in the State.

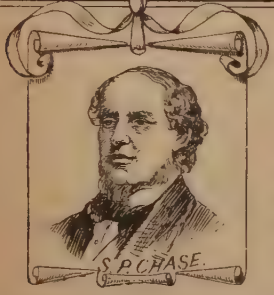
FARGO: MORTGAGE BANK AND INVESTMENT CO.

"Dakota in length and breadth, in population, in area, in wealth and in progress stands unexampled in the annals of mankind for material, political, and, I may say, intellectual and spiritual, advancement. Her surface is nearly all arable land. It is easily tilled and miraculously productive. There is no necessity to clear trees and remove stumps. The old forts, Sitting Bull, and all the wilderness of early days, have given way to cities and towns, and railroads, and farms; and a population larger than that of many States, looms up in majestic proportions, with all the paraphernalia of government, and all the refinement of Christian civilization. This energetic and hopeful people have in their veins the vigorous blood of many races. They have inherited the material, intellectual and moral triumph of the old and new worlds and their civilizations. They have settled upon soil which has no rival in richness and no peer in production."—HON. S. S. COX.

"A land of majestic dimensions, of fruit-trees and vineyards, of lowing kine and golden grain; under the feet a carpet of flowers bespangled with gold-dust, and the most crystalline of heavens bending above. She has a mighty interest in the destiny of the Republic, and in the achievement of that destiny she should bear no ignoble share. . . . In new-world advancement, hers is, and should be, a glorious mission, a sublime work."—COL. DONAN.

FARGO, ON THE RED RIVER OF THE NORTH.





HISTORY.

The valley of the Ohio was in very remote days occupied by an active and widely scattered race, whose remains show that in many respects they were more advanced than the modern Indians. They farmed in a large way; opened mines, and wrought in metals; and had rather complex villages, with permanent fortifications. Otherwise they differed but little from the Indians. The mounds and ancient works at Circleville, Marietta and many other places, commemorate this mysterious vanished race. In Adams County is the great Serpent Mound; an embankment in the form of a winding snake many rods in length. This wonderful memorial of antiquity, with the surrounding land, belongs to Harvard University.

After the Mound-builders vanished (whether by destruction or amalgamation), the Ohio tribes, the Wyandots, Shawnees and others, suffered from the appalling ferocity of the Iroquois Confederacy, whose warriors used to descend the river from time to time, and carry murder and rapine among its people. The hostile and warlike Iroquois shut out the French explorers from the Erie and Ohio Valleys, and compelled them to visit the far West by the Ottawa River and Georgian Bay. But in 1669 Joliet, returning from his explorations, became the first white man to see and travel on Lake Erie, and thus Ohio became, by right of discovery, a part of New France, that vast domain extending from Labrador to the Mississippi River, and covering also much of the Carolinas and Georgia. Northern Ohio was occupied as early as 1680 by French fur-traders, sent out by Governor-General Frontenac, and with their first station near Maumee City, followed by others at Sandusky and Cuyahoga. In 1749 the Marquis de la Gallisonière warned all English settlers out of Ohio, and Major Celeron formally took possession in the name of Louis XV., burying inscribed leaden

STATISTICS.

Settled at	Marietta.
Settled in	1788
Founded by	New Englanders.
Admitted as a State,	1802
Population in 1860,	2,339,511
In 1870,	2,665,260
In 1880,	3,198,062
White,	3,117,920
Colored,	80,142
American-born,	2,803,119
Foreign-born,	394,943
Males,	1,613,936
Females,	1,584,126
In 1890 (U. S. Census),	3,672,316
Population to the square mile,	78.5
Voting Population,	826,577
Vote for Harrison (1888),	416,054
Vote for Cleveland (1888),	396,455
Net State Debt,	$7,014,767
Assessed Valuation of Property (1890),	$1,778,000,000
Area (square miles),	41,060
U. S. Representatives (in 1893),	21
Militia (Disciplined),	5,110
Counties,	88
Post-offices,	3,166
Railroads (miles),	7,912
Vessels,	480
Tonnage,	226,540
Manufactures (yearly),	$348,305,690
Operatives,	183,609
Yearly Wages,	$62,103,800
Farm Land (in acres),	24,529,226
Farm-Land Values,	$1,127,497,353
Farm Products (yearly)	$156,777,152
Public Schools, Average Daily Attendance,	530,492
Newspapers,	1,139
Latitude,	38°23′ to 41°58′ N.
Longitude,	80°31′ to 84°48′ W.
Temperature,	—28° to 104°
Mean Temperature (Columbus),	53°

TEN CHIEF CITIES AND THEIR POPULATIONS (CENSUS OF 1890).

Cincinnati,	296,908
Cleveland,	261,353
Columbus,	88,150
Toledo,	81,434
Dayton,	61,220
Youngstown,	33,220
Springfield,	31,895
Akron,	27,601
Canton,	26,189
Zanesville,	21,009

MARIETTA: MARIETTA COLLEGE.

plates along the Allegheny and Ohio Rivers. The first important American advance toward Ohio came from a singular quarter, having been achieved by Carolinian traders, descending the Tennessee and Cumberland Rivers, as early as 1682. Forty years later, after the Delawares and Shawnees had been driven westward from the Lehigh Valley, swarms of Pennsylvanian traders and blacksmiths crossed the Allegheny Mountains to their villages. Among the white people in Ohio before settlement began were many refugees, renegades, deserters and captives, who had been adopted into the native tribes. There were also a few singular hermits, like the one named Johnny Appleseed, a quaint Swedenborgian recluse, who rambled alone on foot over a great part of Ohio, with a bag of apple-seeds, planting orchards wherever he could find or clear a favoring place. Among the chief actors in the Ohio drama for many years appeared French officers, Virginian and Pennsylvanian emissaries and traders, Miami and Delaware chieftains, and other picturesque characters. The King of England in 1763, after the annexation of French America, proclaimed Ohio and the new conquest beyond to be outside of all existing provinces, and "under the king's sovereignty, protection and dominion, for the use of the Indians." But it was necessary for Col. Bouquet to march from Pittsburgh to the Muskingum, with parts of the 42d (Highlanders) and 60th British regiments and 700 Provincials, and compel the savages to give up 206 white captives. In 1774 the Earl of Dunmore led an army of Virginians into the Scioto Valley; and in the same year Ohio was annexed to the Province of Quebec. During one of the gloomiest periods of the Revolution, an American general asked what should be done if the king's troops, aided by the rumored Russian alliance, should drive the Continental army from the States. And Washington answered: "We will retire to the valley of the Ohio, and there we will be free." Virginia claimed all of Ohio (as well as of Indiana and Illinois), according to her charter given by King James I. in 1609; and Connecticut claimed Ohio north of 41°, by Charles II.'s charter of 1662. These ancient claims by conquest and royal charter were ceded to the United States. The Western Reserve, of 3,666,921 acres, extending for 120 miles west of Pennsylvania, and north of 41°, was retained by Connecticut until 1792-5, when she granted 500,000 acres (the Firelands) to her people whose homes had been burned by invading armies in the Revolution; and alienated the remainder for a school-fund. In 1800 she surrendered all jurisdictional rights. Virginia reserved from her cession 3,709,848 acres between the Ohio, Scioto and Miami Rivers, and below, for military bounty lands; and in 1783 also relinquished her jurisdiction. New York claimed Ohio as hers, by virtue of its ancient conquest by her Iroquois tribes, but yielded this right to the General Government.

CLEVELAND: LIGHTHOUSE.

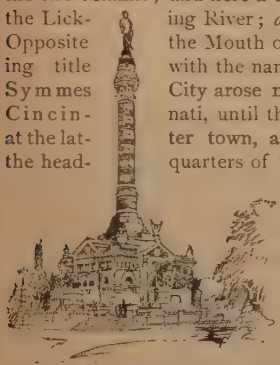
The "pioneers," as those were called who came to the Northwest after the Territorial and State Governments had been established, seem to have been ignorant that any white people had preceded them, and had many traditions and controversies as to the "first white child" born in the territory. How much they were mistaken appears from the references which have already been made to the French and Pennsylvanian traders and the captives who had intermarried and amalgamated with them and the Indian tribes, before the middle of the last century. But besides these, the missionaries had founded their mission villages on the upper Muskingum prior to the Revolutionary War, and well deserve to be remembered and honored as the "Pilgrims of Ohio." The ruthless catastrophes by which they were destroyed also serve to

POINT PLEASANT: BIRTHPLACE OF U. S. GRANT.

remind us that about the time of the Revolutionary War the perpetrators, a considerable white population of speculators and squatters, had possessed themselves of the best lands and the salt springs in the southeastern quarter of Ohio, and in defiance of the civil and military authorities of the United States had actually organized themselves into a sort of local government. These, associated with a similar population of outlaws from the Virginia side of the Ohio River, were the most savage foes of the Moravian missions.

CLEVELAND: STATUE OF GEN. MOSES CLEAVELAND.

The first permanent settlement came from the Ohio Company, a band of New-England veterans of the Revolutionary War, who paid the Government $1,000,000 in Continental scrip for 1,500,000 acres on the Ohio, between the Muskingum and the Hocking. In 1788, Gen. Rufus Putnam founded the fortified town of Marietta (named for Marie Antoinette), at the mouth of the Muskingum. High up on the Youghiogheny River, in Pennsylvania, these New-England men built the galley *Mayflower*, with a heavy plank-roof, to resist Indian rifle-balls. And thus the new pilgrims of the West floated down the Yough, the Allegheny and the Ohio, to their future homes. In 1788 John Cleves Symmes applied for 1,000,000 acres along the Ohio, between the two Miamis; and here a town arose in 1788, bearing the name of Losantiville (*L* for the Licking River; *os*, "mouth"; *anti*, "opposite"; *ville*, "city," or "The City Opposite the Mouth of the Licking River"). Gov. St. Clair replaced this amazing title with the name *Cincinnati*, in honor of the military Order of the Cincinnati. Symmes City arose nearly at the same time, at North Bend, and hotly rivalled Cincinnati, until the United-States garrison of Fort Washington was established at the latter town, and gave it the lead. At Marietta Gen. St. Clair set up the headquarters of the Northwest Territory, in 1788, and founded the first civil government west of the Alleghanies. The Territory Northwest of the River Ohio included Indiana, Illinois, Michigan, Wisconsin and Minnesota east of the Mississippi. The remarkable Ordinance of 1787, creating this government, included the clause: "There shall be neither slavery nor involuntary servitude in said territory, otherwise than in punishment of crimes, whereof the party shall have been duly convicted." This enactment secured that personal liberty which afterwards spread over the entire Republic. In 1800 the Northwest Territory was cut down to the present area of Ohio and eastern Michigan; and in 1803 it lost the Michigan part, and became a State, to which the Toledo region was annexed in 1836, after a bitter disputation with Michigan.



CLEVELAND: SOLDIERS' MONUMENT.

For many years the Indians of Ohio endeavored to check the white invaders by murderous forays and massacres. The country between the Miamis won the perilous name of "The Miami Slaughter-pen." The lake shore remained unoccupied, because of the hostile Englishmen and Indians, until 1796, when Moses Cleaveland and 52 Connecticut people founded Cleveland. In 1790 Gen. Harmar marched against the Indians with 1,450 soldiers, and suffered a reverse. A year later Gen. St. Clair led 2,000 troops into interior Ohio, and met with an appalling defeat. In 1794 Gen. Wayne advanced with the famous Legion of the United States, and crushed the Indian power forever, at the battle of the Maumee. After this blow the Indian nations signed the treaty of Greenville, ceding to the Republic nearly all Ohio, besides parts of Indiana and Michigan, and they never afterward violated the limits thus fixed. New

PUT-IN-BAY AND LAKE ERIE.

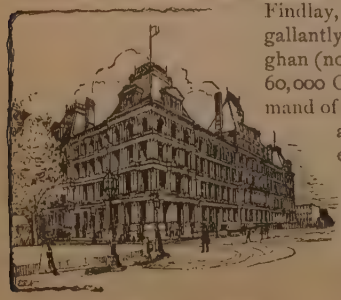
CLEVELAND: THE POST-OFFICE.

lines of towns sprang up in the interior, thus relieved from the apprehension of savage hostilities. Gen. Dayton founded Dayton in 1796; and in the same year anti-slavery Kentuckians established Chillicothe, the capital of "New Virginia." Then also the British garrisons evacuated northwestern Ohio; and the last buffalo was killed in the Hocking valley. Ebenezer Zane of Wheeling founded Zanesville in 1799. The Firelands were surveyed and opened for colonization by Taylor Sherman of Connecticut, grandfather of William Tecumseh and John Sherman. Within a few years Marietta built at her ship-yards a score of sea-going vessels, and sent them to foreign ports, down the Ohio and Mississippi, and out over the Atlantic. Great fleets of flat-boats and keel-boats carried the produce of the infant State to New Orleans, the keel-boats returning with cargoes of foreign goods. In 1811 the first steamboat to New Orleans, descended the Ohio, from Pittsburgh, many of the rustics supposing that it was a comet, and others fleeing to the hills, with the cry: "The British are coming!" In 1810 the steamboat *Walk-in-the-Water* began the vast steam-navigation of the lakes, traversing Lake Erie westward from Buffalo.

The early history of Ohio abounds in interesting episodes, like the hideous massacre of the Moravian Indians, at Gnadenhütten, by American border-ruffians, in 1782; the vast and wide-spread conspiracies of chieftains like Pontiac and Tecumseh; the Spanish intrigues to gain possession of the Ohio Valley; the obscure plot of Aaron Burr, whose fleet for the conquest of the Southwest was built at Marietta; and the establishment of the Mormon Church at Kirtland, where Brigham Young entered its apostolate. But the most arduous struggles of the pioneers were not with Indians or fanatics, but with the forests and the bad roads. The houses were log-huts of a single room, with earthen floors, windows of greased paper, and chinks daubed with clay; food of ash-cakes and hoe-cakes, dodgers and pones; furniture hewn from beech and poplar, with bear-skin beds and buckeye bowls and platters; and clothing from deer-skins, tow-linen and jeans, dyed with walnut and butternut. The chief pastimes were bear-hunts and sugar-camps, militia-musters and quarter-races, shooting-matches and quilting-parties, weddings and house-warmings, camp-meetings and travelling museums. The itinerant school-masters and circuit-riding preachers of those arduous days laid the foundation of the cultivation and religion of the modern State.

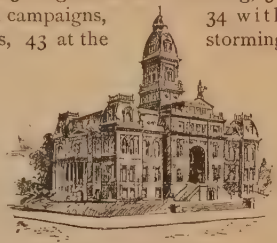
SPRINGFIELD: POST-OFFICE.

When the War of 1812 broke out, Ohio sent promptly into the field McArthur's regiment from the Scioto, Findlay's from the Miami, and Lewis Cass's from the Muskingum. Gen. Hull's ill-fated army marched from Urbana to the Maumee, fortifying Kenton and Findlay. After Detroit fell the British invaded Ohio, and were gallantly repulsed at Fort Meigs, on the Maumee, and Fort Croghan (now Fremont). At the outbreak of the late civil war 60,000 Ohioans volunteered, and Gen. McClellan received command of the State troops. Two regiments went to Washington, and McClellan took ten regiments and drove the southerners from West Virginia. At the end of 1863 the State had 200,000 soldiers in the field, and retained also the organized Ohio Militia of 168,000 men, and the armed and disciplined Ohio Volunteer Militia of 44,000. In the critical time of 1864, at 16 days' notice, Ohio sent 40 new regiments into the field. The troops called for aggregated 306,322, and the



CINCINNATI: POST-OFFICE.

State actually furnished 319,659, or more than one tenth of the National armies. 25,000 died in the service and 40,000 were wounded. Ohio had 30 regiments at Vicksburg, 39 in the Army of the Cumberland, 11 in Sheridan's Shenandoah campaigns, 34 with Thomas at Nashville, 45 with Sherman in the Carolinas, 43 at the storming of Mission Ridge, and 13 at Gettysburg. Among the generals of Ohio birth or training, were Grant, Sherman, Sheridan, McPherson, Buell, Rosecrans, Gilmore, McDowell and Cox. When Kirby Smith's Confederate army menaced Cincinnati, in 1862, more than 15,000 "squirrel-hunters" from rural Ohio poured into that city, without uniforms or organization, and armed with their own old-fashioned rifles. Nearly a year later, John Morgan's Confederate cavalry rode across 15 counties of southern Ohio, galled by the militia, pursued by National troops, and finally captured.



LIMA : COURT-HOUSE.

The Name *Oheo* means "How Beautiful!" and was applied by the Senecas of Lake Erie to the combined river Allegheny-Ohio. The Wyandots called it *Ohee-zuh*, "the grand." The French explorers retained the Iroquois name, spelling it *Oyo*, and translating it, literally, *La Belle Rivière*, "The Beautiful River." A popular name for Ohio is THE BUCKEYE STATE, in recognition of the multitudes of buckeye trees (*Aesculus flava* or *glabra*) found within its borders. The nuts of this tree resemble a buck's eye. The people of the State have also long been called Buckeyes. Before 1820 Ohio was generally called THE YANKEE STATE by the Kentuckians and Virginians, mainly on account of its free institutions.

CINCINNATI : HAMILTON-CO. COURT-HOUSE.

The Arms of Ohio display a bundle of 17 arrows and a sheaf of wheat, both standing erect, and in the background a range of mountains, with the sun rising over them. The supporters are a farmer and a smith, with their implements. The motto is: IMPERIUM IN IMPERIO; "An Empire within an Empire."

The Governors of Ohio have been: *Territorial:* Arthur St. Clair, 1788–1802; Chas. W. Byrd, (acting) 1802–3. *State:* Edward Tiffin, 1803–7; Thos. Kirker, (acting) 1807–8; Samuel Huntington, 1808–10; Return Jonathan Meigs, 1810–14; Othniel Looker, (acting) 1814; Thos. Worthington, 1814–18; Ethan Allen Brown, 1818–22; Allen Trimble, (acting) 1822; Jeremiah Morrow, 1822–26; Allen Trimble, 1826–30; Duncan McArthur, 1830–32; Robert Lucas, 1832–36; Jos. Vance, 1836–38; Wilson Shannon, 1838–40 and 1842–44; Thos. Corwin; 1840–42; Thos. W. Bartley, (acting) 1844; Mordecai Bartley, 1844–46; Wm. Bebb, 1846–49; Seabury Ford, 1849–50; Reuben Wood, 1850–53; Wm. Medill, 1853–56; Salmon P. Chase, 1856–60; Wm. Dennison, 1860–62; David Tod, 1862–64; John Brough, 1864–5; Chas. Anderson, (acting) 1865–66; Jacob D. Cox, 1866–68; Rutherford B. Hayes, 1868–72 and 1876–77; Edward F. Noyes, 1872–74; Wm. Allen, 1874–76; Thos. L. Young, 1877–78; Richard M. Bishop, 1878–80; Charles Foster, 1880–84; George Hoadly, 1884–86; Joseph B. Foraker, 1886–90; James E. Campbell, 1890–92; and Wm. McKinley, Jr., 1892–4.

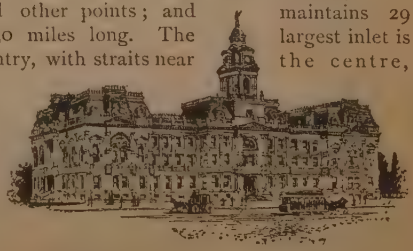
Descriptive.—Ohio is the fourth State in population and wealth, and extends for about 225 miles east and west, and 210 miles north and south from Michigan and Lake Erie to Kentucky and West Virginia. It covers a larger area than Virginia, Kentucky or Maine.

ST. CLAIRSVILLE : BELMONT-COUNTY COURT-HOUSE.

A range of hills traverses the State from below the northeastern corner to the Indiana line near Greenville, reaching its main height near Zoar, 1,491 feet above the sea. This ridge forms the divide between the Lake-Erie and Ohio-River waters, with great plains sloping gradually away on the north and south. In the centre and northwest the first settlers found extensive wet prairies, carpeted with grasses and bright flowers and wild rice, and diversified by island-like groves of black-jack. There were also valuable dry prairies, like the Pickaway Plains, all ready for the plough. The soil is a productive loam, which has borne noble harvests for nearly a century. The valleys are composed of fertile alluvium and drift, on which corn thrives amazingly. The valleys of the Muskingum, the Scioto and the two Miamis are very productive, the latter being an extension of the blue-grass country of Kentucky. In the south the rivers have cut gorges in the plateau, with rounded bluffs and deep glens, overarched by ancient forests. The high hills along the Ohio abound in picturesque and smiling beauty, and attain a height of 600 feet. The Ohio River is 1,265 miles long, from its remotest source in New York, and 975 miles long, from its formation by the confluence of the Allegheny and Monongahela Rivers at Pittsburgh. It drains 214,000 square miles, descending from 697 feet high at Pittsburgh to 269 feet at Cairo, with a current of from one to three miles an hour. Into the Mississippi it pours a much greater quantity of water than the Missouri. There are 5,000 miles of navigable streams in the Ohio-River system. The floods in this great stream are often destructive, rising to a height of 63 feet above low-water mark. The river widens from 1,000 feet, above Gallipolis, to 1,600 feet at Cincinnati, and 3,000 feet at Cairo; and for 436 miles it flows along the southern border of the State, navigable at all times, although in late summer and autumn the sand-bars and towhead islands are annoying to the pilots, and keep large steamboats below Wheeling. The chief streams on the south are the Mahoning; the Muskingum, sometimes navigable for 110 miles to Coshocton; the Little Miami and Big Miami; the Scioto, 200 miles long; and the Hockhocking. Lake Erie receives the Maumee (the ancient Miami of the Lakes), on which large steamboats ascend to Perrysburg, 18 miles (and sometimes to Defiance, 60 miles); the Sandusky, navigable to Fremont, 17 miles; and the Huron, Black, Vermilion, Cuyahoga, Rocky, Chagrin, Grand, and other streams. The interior rivers are valuable for their water-power, and contain many rapids, near which factories have risen. Lake Erie, the fourth of the Great Lakes in point of size, is 250 miles long and 60 miles wide, and 564 feet above the sea. It is the shallowest of the lakes, and the most dangerous to navigate; but has a great and increasing commerce, with Cleveland and Sandusky as the chief Ohio ports, and Erie and Buffalo farther to the eastward. The Government has constructed or improved the harbors at Sandusky, Port Clinton, Huron, Black River, Vermilion, and other points; and maintains 29 light-houses on the Ohio coast, which is 230 miles long. The largest inlet is Sandusky Bay, extending 18 miles into the country, with straits near the centre, forming the Upper Bay and the Lower Bay. There are ten islands off Sandusky Bay, the largest of which (Kelley's) covers 2,800 acres, with rich vineyards, limestone-quarries, and summer villas, and 836 inhabitants. Put-in-Bay Island has 600 inhabitants and several summer hotels, formerly much frequented by Southerners.

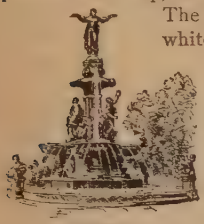
CINCINNATI: QUEEN-CITY CLUB.

TOLEDO: PUBLIC LIBRARY.



COLUMBUS: FRANKLIN-COUNTY COURT-HOUSE.

The Ohio waters contain gigantic cat-fish and sturgeon (sometimes weighing 75 pounds), brook and lake trout, black and calico bass, suckers and chub, white and yellow perch, pickerel and carp, herring and muscalonge, sun-fish and sheepshead, and other varieties. The State Fish Commissioners have distributed hundreds of millions of white-fish and perch, eels and carp; and Ohio's profit from the white-fish of Lake Erie exceeds $500,000 yearly. Sandusky claims to be the largest market for fresh-water fish in the world, and has 1,000 men and $1,000,000 in capital in this business, and ships 12,000 tons a year. Another product of Sandusky is ice, 250,000 tons of which can be stored in her ice-houses at one time.



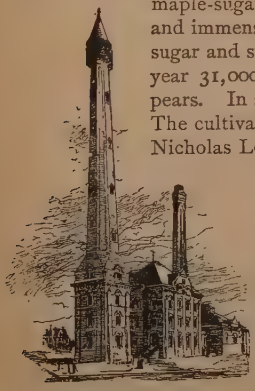
CINCINNATI: TYLER-DAVIDSON FOUNTAIN.

At the time of the first settlement Ohio rested under the shadows of wide-spreading forests, and fully a quarter of its domain still remains in woodlands, fairly distributed through all the counties, but heaviest along the Ohio and Maumee Rivers.

The Climate of northern Ohio resembles that of lower New England; that of southern Ohio is rather more severe than along the same latitude on the Atlantic coast. It is subject to great and sudden changes; and to large variations in the rainfall, which ranges from 32 inches in the north to 46 in the southwest. Snow falls 38 days in the year; rain, 104; and there are 54 cloudy days and 169 fair and clear. The climate is salubrious, and the death-rate diminishes yearly. The isothermal line of Cincinnati is that of Milan and Constantinople. Lake Erie has a marked effect in moderating the climate of northern Ohio, so that it has become a region of orchards and vineyards. The State lies between the isothermal lines of 44° and 52°.

CINCINNATI: BRIDGE IN EDEN PARK.

Farming.—Although manufactures and mining interests are important, agriculture remains the chief industry of Ohio. Her crops have doubled since 1870, by virtue of improved methods of farming, and liberal aids in fertilizing the land. Wheat yields heavy harvests in the southwestern counties, and along the Maumee and Muskingum valleys. From its 10,000,000 acres of tilled land, Ohio raises yearly 100,000,000 bushels of corn, 37,000,000 of wheat, 37,000,000 of oats, and 12,000,000 of potatoes, 35,000,000 pounds of tobacco, 3,000,000 tons of hay, and large crops of rye, barley and buckwheat, the whole valued at above $100,000,000 a year. Among other interesting products are 3,000,000 pounds of maple-sugar, 500,000 gallons of maple-syrup, 2,500,000 pounds of honey, and immense amounts of flax-seed and fibre, timothy-seed and sorghum, sugar and syrup. The orchards cover 500,000 acres, and have yielded in a year 31,000,000 bushels of apples, 1,500,000 of peaches, and 270,000 of pears. In a single year 400,000 bushels of strawberries have been sold. The cultivation of Catawba grapes was introduced about the year 1835, by Nicholas Longworth, and the Ohio-River hills bore noble and productive vineyards for many leagues. The product of grapes and wine assumed great importance. About the year 1860, the climate of southern Ohio began to be afflicted with sudden changes and heavy fogs, due to the clearing off of the forests, and the vineyards deteriorated and failed. The chief seat of this industry now is on and near Kelley's and Put-in-Bay Islands, in Lake Erie, where there are 6,000 acres of vineyards, producing yearly 2,500,000 gallons of wine and 30,000,000 pounds of grapes. The live-stock of Ohio is valued at $112,000,000, and includes 800,000 horses and mules, 1,750,000 cattle, 3,700,000 sheep, and 2,700,000 hogs. Many thousands of the sheep are of the



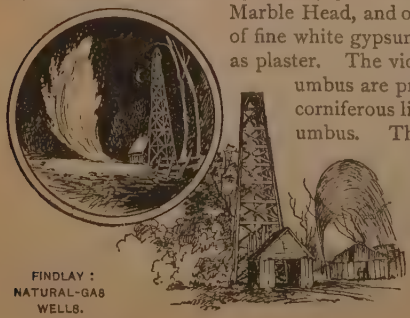
CLEVELAND: HIGH-SERVICE PUMPING STATION.

CLEVELAND: JEWISH ORPHAN ASYLUM.

best breeds, and the flocks yield yearly 20,000,000 pounds of strong-fibred wool. The clay soil of the Western Reserve is the great dairy-region of Ohio. The dairy-products include yearly over 50,000,000 pounds of butter, 40,000,000 of cheese, and 50,000,000 gallons of milk. Poultry and eggs reach a yearly value of $5,000,000.

Minerals.—The coal-measures cover 10,000 square miles, and yield 10,000,000 tons yearly, placing Ohio third among the coal-producing States, with 700 mines and 20,000 miners. It is all bituminous, of high value for gas, steam and the iron-manufacture. The counties of Athens, Perry and Hocking, in the Hocking Valley, produce nearly half of the coal. The block or Mahoning variety is prized for furnace use. The iron and steel industries of Ohio reach $35,000,000 yearly, with 100 furnaces and 20,000 workmen, largely dependent on local ore, of which 250,000 tons are mined yearly, from seams in some cases 19 feet thick. The various ores are distributed through 12,000 square miles. One of the ores is an excellent black band, and others are measurably free from sulphur and phosphorus. One third of the product comes from Lawrence, the most southerly county of Ohio. One third of the iron manufacturing is done in Cuyahoga County (Cleveland), which, with Hamilton County (Cincinnati) makes 56,000 tons of castings yearly. The salt springs are in the Muskingum Valley and along the Ohio near it, and the salt deposits, 200 feet in thickness, are near the shore of Lake Erie. The yearly product reaches nearly 400,000 barrels, four fifths of which comes at present from Meigs and Muskingum Counties; but these districts are already over-shadowed by the rock-salt of Cleveland and Wadsworth. Half the bromine used in the world comes from Ohio, the brine of each barrel of Tuscarawas salt containing three fourths of a pound of it. Fire-clay is mined to the amount of 500,000 tons yearly, more than half of it coming from Jefferson and Columbiana Counties, on the upper Ohio. The quarries of Ohio produce more than $2,500,000 a year, and 3,000 men are engaged in quarrying limestone, of which 600,000 tons are burned yearly for lime, and a still larger quantity finds use for fluxing, besides great amounts devoted to building, flagging and paving. Sandusky alone ships yearly 500,000 barrels of lime from the quarries and kilns of Marble Head, and on the shore of the bay there are enormous beds of fine white gypsum, of which 60,000 barrels yearly are sent away as plaster. The vicinities of Xenia, Springfield, Marion and Columbus are prolific in lime. There are profitable quarries of corniferous limestone at Kelley's Island, Sandusky and Columbus. The white limestone of the Dayton and Piqua regions is exported in large quantities. Summit County, including Akron, produces two thirds of the 5,400,000 gallons of stone-ware made in Ohio, whose output of stone and earthenware is valued at $1,000,000 a year, and is one third of the entire American supply. Toledo has immense deposits of fine glass-sand.

CINCINNATI IN 1808.



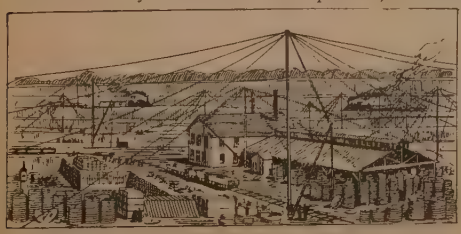
FINDLAY: NATURAL-GAS WELLS.

Quarries of excellent sandstone abound in Ohio, particularly in the counties of Cuyahoga and Lorain, and an enormous business is done here in quarrying building-stone and manufacturing grindstones, mounted grindstones and scythe stones. The greatest deposit of sandstone, known geologically as the Berea Grit, is located here, and is widely famous for its evenness of color, purity of texture, and exemption from the impurities that would deteriorate its marketable value. The building-stone finds a market from the most northerly point in Minnesota to the Gulf of Mexico, and from the Rocky Mountains to the Atlantic. No other building-stone is in such general use in such a broadcast manner as this is; and four fifths of all the grindstones made in America are manufactured here, finding a market not only all over the United States, but throughout the civilized world. The Cleveland Stone Company, a corporation founded in July, 1886, has absorbed the most valuable quarries in this section, and is supplying and has furnished building-stone for many edifices noted for their beauty. It is the largest producer of sandstones and grindstones in the world. The company does not hold all its property in Ohio, but possesses quarries in Michigan, Indiana, New Hampshire, Vermont and Massachusetts. The plant covers nearly 3,000 acres, and the pay-roll amounts to over $500,000 yearly, with nearly as much more expended for supplies. All of 25,000 tons of coal are used in making steam, and 6,000 tons of sand and 1,200 tons of saw-blades are consumed in the sawing of stone. In a single year, 3,500,000 cubic feet of building-stone, 120,000 tons of foundation-stone and 30,000 tons of grindstones were shipped by this company. These shipments required 30,000 cars. The State Capitol of Michigan is built entirely of buff Amherst stone, and so are the Canadian Government buildings at Ottawa; and there is hardly a State in the Union that has not used more or less of this stone in its structures. They shipped enough curbing last year to curb a road on both sides 136 miles long; and sufficient flagging three inches thick to cover 80 acres of land. The Cleveland Stone Company owes its success chiefly to its president, James M. Worthington, its treasurer, George H. Worthington, and its general superintendent, James Nicholl, who have spent almost all their lives energetically developing the stone industry of northern Ohio.

NORTH AMHERST: QUARRY No. 6. CLEVELAND STONE CO.

WEST VIEW: QUARRY No. 2. CLEVELAND STONE CO.

The petroleum industry of Ohio has risen to importance since 1885, and has its chief seats at Lima and North Baltimore, where there are enormous storage tanks. The wells are very numerous and prolific, and the oil is of an excellent grade; but merit does not rule in the oil markets of the country, and for several years the price was forced to 15 cents a barrel; it is now bringing 37 cents a barrel. It is much used as fuel, for manufacturing operations and for gas production, and the demand far exceeds the supply. The product of the Ohio oil-wells rose from 650,000 barrels in 1885 to 12,500,000 barrels in 1889. Experiments have



BEREA: QUARRY AND GRINDSTONE MILLS, CLEVELAND STONE CO.

COLUMBUS: OHIO INSTITUTION FOR THE EDUCATION OF THE BLIND.

been made for years past with a view of eliminating the sulphur from this oil, and at last two processes have been invented and put into successful operation on the largest scale, which yield the highest quality of illuminating oil. The largest refinery of the United States is building near Chicago; its supply of oil comes from the Lima field by two lines of pipe, with a united capacity of 15,000 barrels per day. Natural gas first began to be used at Findlay in 1884, when a well dug for the purpose produced 250,000 feet a day. Amid great excitement many other wells were bored, and the population rose from 5,000 to 20,000, with new manufactories and other industries. There are more than 200 glass-pots in the twelve glass-works of the city. The gas-field covers many miles north and east of Findlay, and valuable supplies are found at many other points in Ohio. If the demands now being made do not exhaust the supply prematurely (as seems possible), this product will have a vast economic and industrial value. The gas is highly available as a fuel, and has largely supplanted coal in the factories, many of which have arisen on this account. After the well has been drilled and the piping set up, the cost is trifling. Many cities are lighted at night by this wonderful product of the earth. The Adams-County Mineral Springs flow at the foot of Peach Mountain, and contain chlorides of magnesium, sodium and calcium, and sulphate and carbonate of lime. The feeble White Sulphur Springs in Delaware County have ceased to be a fashionable resort. Yellow Springs are pleasantly situated at the Cliffs on the Little Miami River, and produce diuretic and tonic waters, once much sought by invalids.

COLUMBUS: OHIO INSTITUTION FOR THE EDUCATION OF THE DEAF AND DUMB.

Government.—The governor and the chief executive officers are elected every two years; and there are many commissioners and inspectors appointed by the governor. The General Assembly is elected every two years, and includes 36 senators and 114 representatives. The five Supreme-Court judges are elected by the people. There are eight circuit courts, each with three judges; and several minor courts. The State Capitol, at Columbus, is an enormous Doric building, of fine gray limestone, with a high dome. The flag-room contains more than 400 flags, banners and markers borne by Ohio troops in the Secession and Mexican Wars. The State Library has 60,000 volumes.

XENIA; OHIO SOLDIERS' AND SAILORS' ORPHANS' HOME.

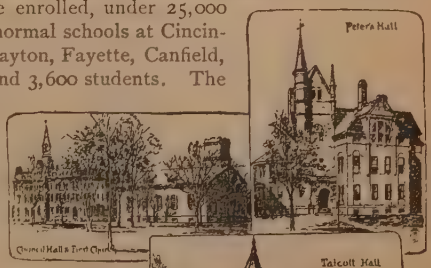
The Ohio National Guard consists of 82 companies of infantry, eight batteries of light artillery and one troop of cavalry. The infantry is organized into nine regiments and one battalion. The artillery is organized into one regiment; and attached to several of the batteries are from two to four Gatling guns. One company of infantry and the troop of cavalry are not attached to any regimental organization. The guard is uniformed, armed and equipped the same as the United-States army; and holds

annual encampments for from six to eight days, sometimes by regiments, sometimes by brigades, and occasionally the entire force is brought together in one camp. The State has no permanent camping ground, and the encampments are held in different localities.

ATHENS : OHIO UNIVERSITY.

The State Penitentiary at Columbus is a great castellated limestone building, with 1,650 convicts, and grounds covering 24 acres. The Intermediate Penitentiary, for first offenders, is at Mansfield. The State insane asylums at Athens, Dayton, Cleveland, Columbus, Toledo and Long View, contain 4,600 inmates, and cost $800,000 a year. The institutions for the deaf and dumb (500 pupils), for the education of the blind (300 pupils), and for feeble-minded youth (800 inmates), are all at Columbus. Their buildings have cost $2,000,000, and $200,000 a year is required for their running expenses. The Girls' Industrial School, at White Sulphur Springs, takes care of 300 inmates, on a farm of 189 acres. The Boys' Industrial School has 850 inmates, on a hilly and picturesque domain of 1,170 acres, near Lancaster. The lads are in families of 50, each under an elder brother, an assistant elder brother, and a teacher. The Ohio Soldiers' and Sailors' Home, at Sandusky, has 15 fire-proof cottages of blue limestone (each for 50 men), on a domain of 90 acres, and cares for 700 veterans. The Soldiers' and Sailors' Orphans' Home, on a farm of 275 acres, near Xenia, owns a fine administration building and 30 brick cottages, in a long line. Here 600 boys and 350 girls receive a valuable industrial education. The Central Branch of the National Asylum for Disabled Volunteer Soldiers occupies a park-like domain of 627 acres, on a breezy hill over Dayton, traversed by 32 miles of broad avenues named for the States. There are 50 great barracks and other buildings, with conservatories and gardens, an opera-house, a library of 15,000 volumes, a white stone church, a large brick hospital, and a dining-hall that can seat 2,250 men. The asylum contains above 5,000 inmates, more than half of whom are German and Irish veterans of our war. The National Cemeteries are at Johnson's Island and Columbus, where Confederate prisoners were buried. The Columbus Barracks of the United-States Army occupy many buildings, in a beautiful wooded park.

Education costs Ohio $11,000,000 a year, for its common schools alone. Out of 1,200,000 youth of school age, 780,000 are enrolled, under 25,000 teachers. There are private and municipal normal schools at Cincinnati, Columbus, Cleveland, Lebanon, Ada, Dayton, Fayette, Canfield, Athens, and Wauseon, with 140 teachers and 3,600 students. The chief of these is at Lebanon. The State has a large school-fund, mainly derived from public lands, and supplemented by taxes and fines. There are 34 degree colleges, and 44 others, and 20 professional schools, with $7,000,000 worth of property, 500 instructors and 18,000 students.



OBERLIN :
OBERLIN COLLEGE.

The Ohio State University has an endowment of over $540,000, held by the Commonwealth, and derived from the sale of land given by act of Congress in 1862. It is at Columbus, on a domain of 325 acres; and in and near its buildings are the headquarters of the State Agricultural Experiment Station, the Ohio Meteorological Bureau and the State Forestry Bureau. There are 175 hard-working students.

Fifty of these are women. No charge is made for tuition. There are five schools: Agriculture, Arts, Engineering, Pharmacy and Science; and the university also has a library of 10,000 volumes and a valuable geological museum. The young men form a battalion of four companies, drilled by officers of the United-States Army.

GAMBIER: KENYON COLLEGE.

The Ohio University was provided for in 1787, when the Ohio Company set apart for it two townships of the land then purchased from the United States. This school was organized in 1804, and is the oldest institution of learning northwest of the Ohio River. Its venerable buildings overlook the sinuous Hockhocking Valley, from its park of ancient elms, at Athens.

Oberlin College was established in 1833, by the Congregationalists, and has always had a strong religious character, furnishing a broad education to thousands of pastors and missionaries. Young men and women have equal recognition in the classes, under rules made safe and profitable by many years of experience. Oberlin was for many years bitterly assailed because it opened its doors to negro students. The college has a number of handsome buildings of Ohio sandstone, most of them of recent construction. The dormitories are inadequate for the 1,200 students (half of them preparatory), and many families in the town receive them as boarders.

HIRAM: HIRAM COLLEGE.

Kenyon College, at Gambier, was founded by Philander Chase, the first Episcopal Bishop of Ohio, in 1827. The college park contains 100 acres, shaded with noble oaks and maples, and sloping to the Kokosing Valley. Here stands Kenyon Hall, a many-spired dormitory, with stone walls four feet thick, dating from 1827; Ascension Hall, with a high battlemented tower, used for an observatory; and Rosse Hall, a stone Ionic building, containing the gymnasium and audience room. The Church of the Holy Spirit, the college chapel, is a beautiful cruciform Gothic edifice, of sandstone, with memorial windows, climbing ivy, and wide grounds. Bexley Hall is a great Elizabethan building, the home of the Theological Seminary. Kenyon has seven professors and 30 students. Among the graduates have been Rutherford B. Hayes, Stanley Matthews, Edwin M. Stanton and David Davis. Kenyon Military Academy is a preparatory school, with a park of 60 acres. The cadets wear uniforms like those of West Point. Harcourt-Place Seminary, for girls, also belongs to this group of Episcopal institutions. Western-Reserve University, at Cleveland, includes Adelbert College, formerly Western-Reserve College, (and re-named for the deceased son of Amasa Stone, its chief benefactor); the Cleveland Medical College, with its handsome brownstone building; the Cleveland College for Women; the School of Art, and the Conservatory of Music. The preparatory Western-Reserve Academy occupies the ancient buildings and grounds of Western-Reserve College, founded at Hudson, in 1826. In 1882 the college was transferred to Cleveland, to the new buildings erected for it by Mr. Stone, and in 1884 the Western-Reserve University was chartered, and has associated together the departments named

YELLOW SPRINGS: ANTIOCH COLLEGE.

above. Subsequently the trustees of the college decided against co-education, and the trustees of the University erected a Woman's College. Adelbert College fronts on Wade Park, on Euclid Avenue. Miami University has a beautiful campus on the ridge of Oxford, overlooking the rich Miami Valley. It was chartered in 1809, and after a long career of usefulness suffered eclipse by the civil war and remained closed for several years. It now has 80 students. Among Miami's graduates were President Benjamin Harrison, Gen. R. C. Schenck, Whitelaw Reid, David Swing, Senator Brice, and other eminent men.

AKRON: BUCHTEL COLLEGE.

Hiram College was founded in 1850 as an academy for the Disciples of Christ, and James A. Garfield held its principalship from 1857 to 1861. It became a college in 1867. The institution has 14 instructors and 50 students (besides 200 preparatory pupils), including many women; and is established among the hills of Hiram. Marietta College is a flourishing institution in the ancient town of Marietta, with about 100 students and a library of 60,000 volumes. It was founded in 1835, and has contributed greatly to the rise of learning in the West. Antioch College, at Yellow Springs, dates from 1853, when Horace Mann became its first president. It has three buildings and 42 collegiate students. Its tone is liberal, and several eminent Unitarians are numbered among its trustees. The University of Cincinnati was opened in 1870, and now has 14 instructors and 130 students. It possesses over $1,000,000 in endowments, and furnishes free tuition for residents of Cincinnati. The Cincinnati Observatory is a department of the university. Buchtel College was founded at Akron in 1870 by the Ohio Universalist Convention, and endowed by John R. Buchtel. It has 92 collegiate students and 320 others. Baldwin University and its affiliated German Wallace College and theological department, grew out of Baldwin Institute, founded in 1846 at Berea; and is a Methodist-Episcopal school with 70 collegiate and 250 other students. Wilberforce University is a small African Methodist institution. The Lutherans conduct Capitol University at Columbus; the Baptists, Denison University at Granville (founded in 1831); the United Brethren, Otterbein University at Westerville; the New Church, Urbana University; the Methodists, Ohio Wesleyan University, founded at Delaware in 1844; the Presbyterians, the University of Wooster, with 250 students; the Reformed Church, Heidelberg College at Tiffin and Calim College at Brooklyn Village; the Friends, Wilmington College; and there are other small colleges at several other towns. The Case School of Applied Science at Cleveland, was endowed by Leonard Case, Jr. (in 1886) with $1,500,000, and offers five regular courses of study. Cincinnati has three regular medical colleges (and two eclectic and one homœopathic), with dental and pharmaceutical schools besides; and Cleveland, Columbus and Toledo each have two regular medical schools. These institutions have 210 instructors and 1,400 students. The chief law school is at Cincinnati, and dates from 1833. It has 150 students and five professors, of whom Ex-Governor Cox is now the dean and head. Ohio has eleven theological schools: Methodist at Berea, Hebrew and Presbyterian at Cincinnati, Catholic at Cleveland, Lutheran at Columbus and Springfield, United Brethren at Dayton, Episcopal

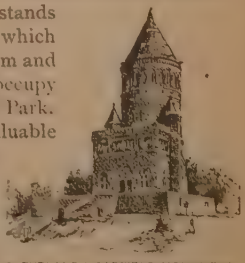
CLEVELAND: CASE SCHOOL OF APPLIED SCIENCE.

CLEVELAND: MEDICAL DEPARTMENT, WESTERN-RESERVE UNIVERSITY.

CINCINNATI: ART SCHOOL AND ART MUSEUM.

at Gambier, Congregationalist at Oberlin, Reformed at Tiffin, and United Presbyterian at Xenia. Lane Theological Seminary, on Walnut Hills, near Cincinnati, was opened in 1832 by the Rev. Lyman Beecher, and has since been an influential and prosperous Presbyterian school. It possesses attractive buildings and grounds and about 50 students. The State contains 8,000 religious societies, with 7,000 church edifices, valued at $33,000,000. There are 5,400 clergymen, 500,000 church-members, and 2,500,000 adherents. One third of the churches and communicants are Methodist, and one sixth Presbyterian. The Baptists and Disciples have nearly 60,000 members each; the Lutherans, 40,000; and the Congregationalists and Reformed Church about 20,000 each. There are 550 Catholic parishes, with a population of 400,000.

The culture of the Buckeye State is farther advanced by a large number of public libraries, the chief of which is at Cincinnati, and has 150,000 volumes. The Young Men's Mercantile Library also has 50,000 books. Cleveland, Chillicothe, Columbus, Dayton, Springfield, Toledo and other cities have generous provision for the literary entertainment of their people, in carefully ordered public libraries. Cincinnati stands foremost among Western cities in its devotion to art and music, which is partly due to its large German population. The Art Museum and academy have received gifts amounting to above $1,000,000, and occupy noble buildings on Mount Adams, 350 feet above the Ohio, in Eden Park. The school has ten teachers and 400 pupils, and hundreds of valuable paintings and sculptures. Cincinnati is also celebrated for its great school of wood-carvers, reviving the excellence of mediæval work. The growth of art in Cincinnati dates from Eckstein's drawing-classes, in 1826, and the art-academies of Franks and Frankenstein, and has been advanced greatly by the munificent endowments of West and Longworth, Springer and Sinton. The great schools of art thus founded have educated several illustrious painters and sculptors, like Powers, Beard and Buchanan Read, and have taught a true appreciation of beauty and nobility to thousands of earnest students. The Garfield Memorial at Cleveland, is a round stone tower, 165 feet high, with historical friezes, illuminated windows, marble mosaics, and statues of War and Peace. The remains of the late President are placed in a great metal casket, in the crypt, above which, in a hall surrounded by granite columns, stands a noble statue of Garfield. The Memorial was built with the contributions of the American people, and dedicated in 1890. It occupies a noble place in Lake-View Cemetery.



CLEVELAND: GARFIELD MONUMENT.

CINCINNATI: THE ROOKWOOD POTTERY.

Pottery in the United States has largely been confined to simple articles for ordinary uses; the artistic being absorbed by the utilitarian; but of later years an earnest attempt has been made at various places to raise the artistic impulse of Americans. One of the most successful and most creditable of these efforts is the world-famous Rookwood Pottery, of Cincinnati. This pottery was established in 1880 by Mrs. Maria Longworth Storer, whose father, Joseph Longworth, was a patron of art and a founder of the Art School of Cincinnati, and whose grandfather, Nicholas Long-

worth, was probably the pioneer producer of Catawba wine. The Rookwood ware is a true *faience*, made of clays from the Ohio Valley, and mainly on that oldest of artist tools, the long-neglected potter's wheel. The ornamentation is entirely underglaze, and discards altogether the modern methods of printed transfers. It is distinguished by boldness and originality, and by the remarkable decorative quality of the color grounds. The ware takes rank with the finest modern work, and finds place in museums and the best private collections, both at home and abroad. The pottery was until recently a private concern, carried on with a purely artistic view. In 1890 the Rookwood Pottery Company was incorporated by a few wealthy connoisseurs, and the financial side of the enterprise remains, as formerly, subordinate to the artistic. The works attract visitors from all over the world, and though their output is very limited, the unique and exquisite quality of the production gives it a ready market on both sides of the Atlantic. Young as the pottery is, it has not only taken several awards in this country and England, but was given the gold medal at Paris in 1889, where the famous potteries of the Old World had entered into competition.

CINCINNATI: SPRINGER MUSIC HALL AND EXPOSITION BUILDING.

Newspapers.—The oldest newspaper is the *Scioto Gazette*, founded at Chillicothe in 1800. Among the journalists of Ohio have been Howells, Piatt, Locke (Petroleum V. Nasby), "Artemus Ward," Murat Halstead, and Whitelaw Reid.

The Cincinnati *News* and job printing establishment is almost co-eval with the city. It was first known as the *Advertiser*, then the *Republican*, and then the *Enquirer*, which name it has held for the past seventy years. It was first a weekly paper, like most of those started in the New West. It grew in time to issue semi-weekly, tri-weekly and daily editions. It was the first daily in Cincinnati that included in its daily issue that of a Sunday issue. In its early history its editions were worked off on hand-presses, their motive power being human muscles. It was not until about 1850 that the various editions were printed on a steam power-press. For the past 20 years the *Enquirer* has been controlled by John R. McLean, under whose energetic management it has grown in business and circulation to be the foremost paper in the State, and one of the most influential in the great West. In politics it has always been, as it is now, Democratic. It may truly be said of the *Enquirer* "it never broke down." It has always been on a firmly established foundation, and promises to maintain that position. The *Enquirer* has gained a world-wide celebrity by the completeness and brightness of its news-service, its special correspondents being scattered all over the world. One of the most potent factors in the marked success of the *Enquirer* is that it has always championed the cause of the people, fearlessly advocating those reforms which the masses demand against the classes. Its weekly edition wields a powerful influence among the farmers' organizations, and it has for years agitated and urged the reforms which are at the basis of the Farmers' Alliance. The mechanical department is located in an extensive building in the rear of the office, and other buildings front on Vine Street. It is as large and as well-equipped as any newspaper in the country. It is complete in every detail, and exemplifies the wonderful growth of modern journalism.

CINCINNATI: "THE ENQUIRER."

At Springfield is issued one of the most successful journals in this country. It is *The Farm and Fireside*, published by Mast, Crowell & Kirkpatrick, who also publish another

SPRINGFIELD: MAST, CROWELL & KIRKPATRICK, "FARM AND FIRESIDE."

journal, *The Ladies' Home Companion*, which ranks high among the notable periodicals. The publishers are three men who are conspicuous in Springfield affairs, and also identified with many affairs of the State and far beyond the State. The senior member, P. P. Mast, besides being an equal owner with Crowell and Kirkpatrick in the publishing business, is also an eminent manufacturer, banker and capitalist. J. S. Crowell is the business manager, and T. J. Kirkpatrick is the managing editor. The printing-house is a handsome four-story brick structure, built and owned by the firm, and in it are commodious and well-appointed apartments for the many details of such an extensive enterprise. *The Farm and Fireside* is a 16-page, 64-column paper, issued twice a month, devoted to agricultural and household matters, and very widely known. Its actual circulation amounts to 250,000 copies, and reaches nearly 40,000 post-offices. These are figures which tell of the remarkably satisfactory manner in which they have served their constituency — the farmers and their families — throughout the length and breadth of this country. It is an excellent periodical, clean in all its details, trustworthy in its reports, comprehensive in its scope, entertaining in its general reading, and as a whole, instructive and interesting. Its advertising columns have been as carefully guarded as possible; the aim being to make the advertising space of service to its readers, as well as profitable to its advertisers. It is the most successful of all the numerous agricultural periodicals. *The Ladies' Home Companion* has been published by this firm for four years, and now has attained a circulation of 150,000 copies. Out of the 60,000 post-offices in this country, it is a regular visitor at nearly 30,000.

Chief Cities.— Cincinnati, "the Queen City" of Ohio and the valley, stands on two terraces above the Ohio River, and around its landward side sweeps a noble semi-circle of high hills, crowned by handsome villas. Among its notable features are the great schools of art and music; the costly public buildings, like the post-office, and the numerous and interesting churches and colleges; the great bridges to the Kentucky shore; the inclined-plane railways, climbing sharply to extensive beer-gardens on the hill-tops; the beautiful surrounding parks, Eden, Burnet Woods, and others; Spring-Grove Cemetery, which many

CINCINNATI: THE QUEEN CITY OF THE WEST, AND THE OHIO RIVER, WITH COVINGTON AND NEWPORT.

travellers believe to be the most picturesque in the world; the great Exposition Building and Music Hall; the massive and noble edifice of the Chamber of Commerce, designed by H. H. Richardson, and built by Norcross Brothers; the populous German quarter, "Over the Rhine" (the Miami Canal); the magnificent Tyler-Davidson Fountain, with its many bronze statues; and the charming highland suburbs of Clifton, Walnut Hills and others. Cincinnati has 100,000 operatives, making yearly more than $200,000,000 worth of goods. There are 24 railway lines entering the city, with several costly bridges across the Ohio River; and steamboats from many ports on the Ohio and Mississippi and their tributaries call at the wharf-boats. The central position of the city gives it a great commerce with the West and South, the city having constructed a railway across Kentucky and Tennessee to Chattanooga.

CINCINNATI: ELM-STREET INCLINE.

What the Café Bignon is to Paris, the Café Savoy to London, Young's to Boston, and Delmonico's to New York, the St. Nicholas is to Cincinnati. No city west of New York has a more deservedly famous restaurant than that of the St. Nicholas, the proprietor of which is Edward N. Roth, whose name as a restaurateur and hotel proprietor is well known on both sides of the Atlantic. The older part of the building includes two of the fine private mansions of older days, with spacious and luxurious rooms and halls, constructed with an eye solely to comfort and content. The St. Nicholas was enlarged in 1891 by an extensive addition on the east, so that the hotel is now one of the large hotels of Cincinnati. Throughout it is most exquisitely furnished, and in many of its appointments it is indeed sumptuous. It is in the very heart of the business section of the city, and for business or pleasure there is no hotel more conveniently situated, being on the corner of Fourth and Race Streets, and handy to all attractions, whether of business or amusement.

CINCINNATI: ST. NICHOLAS HOTEL.

Cleveland is on the south shore of Lake Erie, with a harbor built at great cost, of piers and a breakwater, at the mouth of Cuyahoga River. The chief imports are lumber and Lake-Superior iron-ore, the chief export being coal. The city has 150 iron and steel works, producing $35,000,000 a year; 20 oil-works, including the immense establishments of the Standard Oil Company; and five ship-yards for building wooden and steel vessels. Twelve lines of steamboats and ten railways converge at this point, handling an immense commerce. A single one of Cleveland's four great viaducts cost $2,250,000. Euclid Avenue is one of the handsomest residence-streets in the world, and runs out to the famous Lake-View Cemetery. The abundant trees on the broad streets and in the parks have won for Cleveland the title of "the Forest City," and statues of Gen. Moses Cleaveland and Commodore Perry, and other monuments, further adorn the place.

Hotel accommodations in Cleveland are excellent. This is necessarily so in a city where there is so much railroad travel. The Hotel Hollenden is considered the finest hostelry in the city. It is built of pressed brick, with sandstone trimmings, and rises seven stories high, fire-proof throughout. It was finished May 1, 1890, and cost $1,500,000. The effect of the exterior has been that of studied plainness rather than architectural beauty, but the surface is broken by many octagonal and circular bays, and the corner is surmounted with a large square

CLEVELAND: HOTEL HOLLENDEN.

tower, which rises considerably higher than any point in the vicinity. The original Hollenden was built by L. E. Holden. This was merely a section of the present structure, and contained 135 rooms. The present Hollenden contains 420 chambers and 100 bath rooms. It occupies the whole square at the corner of Bond and Superior Streets, and running back to Vincent Street. The inside finish is mahogany. There is a great deal of tiling in all of the common rooms, bath, office, and corridors. The owners are the Hollenden Hotel Company; the proprietors are L. Dean Holden & Co., and the manager is Frank A. Brobst. In construction, situation, exterior appearance, interior furnishings and general management, there are but few hotels that equal the Hollenden.

CINCINNATI: CHAMBER OF COMMERCE.

Columbus has the State Capitol and several palatial institutions, and a great United-States building, with profitable manufactures of iron and steel, agricultural implements and carriages. It possesses wide streets and large parks, with 50 churches and three colleges. Toledo, five miles up the Maumee River, is an important manufacturing, railway and shipping point, handling immense quantities of coal, iron-ore, grain and lumber, and growing rapidly. Pipe-lines lead natural gas into the city for manufacturing and other purposes. Dayton, on the Big Miami, is a great hive of manufactures, employing 10,000 persons, and producing $15,000,000 a year, with seven railways converging into its bounds. Sandusky, with its fine land-locked harbor, has one of the largest coastwise trades on the lakes, and the largest trade in fresh-water fish ($1,500,000 a year) in the world, with a fruit trade of $1,000,000 a year, a product of 2,000,000 gallons of wine, and a large trade in blue and white limestone. Zanesville, on the Muskingum, has costly public buildings and water-works, and many factories. Historic Chillicothe rears its manufacturing and commercial industries on a picturesque hill-girt plateau near the Scioto. Springfield dwells amid the richest farm lands, and makes myriads of mowers and reapers. Among the other cities are Canton, rich in wheat and coal; Massillon, with quarries of fine white sandstone; Steubenville, digging coal and making iron, amid pleasant river scenery; Xenia, with its colleges and costly public buildings; Hamilton, the manufacturing centre of a rich farming country on the Miami; Ironton, the headquarters of the famous Hanging-Rock iron region; and Pomeroy, on the Ohio, surrounded by salt-furnaces and coal-mines.

The Railroads of Ohio include several great trunk-lines from East to West, numerous North and South routes, and a network of tributary roads, so that every county is crossed. The revenue-yielding tonnage of freight is 85,000,000 tons yearly, one third of which is coal and one tenth grain. The first line extended from Springfield to Sandusky, and was begun in 1835. Now the State is a grand highway of nations containing long sections of the famous routes between the agricultural West and the commercial East.

One of the richest regions of the West is the Miami Valley, which is traversed by the Cincinnati, Hamilton & Dayton Railroad. The Cincinnati terminus has a large station and train-house, built in 1864. The company was chartered in 1846, and operates 347 miles. The capital stock is $4,000,000, besides preferred stock of $1,553,600. July 1, 1890, the assets were $15,500,186; the gross earnings from operation, $3,778,003, less the operating expenses and taxes, $2,235,979, leaving a net income of $1,542,024 for the year. The amount of interest paid last year was $707,940. During the past year the company purchased from the Louisville, Cincinnati & Dayton Railroad a completed section from Middletown to Hamilton, a distance of 14 miles. They now have 95 locomotives and 5,214 cars, of which 5,055 are freight-cars. During the past year

CINCINNATI: CINCINNATI, HAMILTON & DAYTON DEPOT.

they have hauled 3,303,493 passengers and 3,803,251 tons of freight. Much of this latter is grain and lumber. The company's main line extends from Cincinnati to Toledo, connecting there for Detroit and all points along the great lakes. This line is about 200 miles long, and traverses the rich and beautiful agricultural region celebrated in the poem of "June on the Miami," passing through the important cities of Hamilton and Dayton, and through the famous oil-country around Lima. Another division of this railroad swings off to the westward at Hamilton, and reaches Indianapolis in about 100 miles. This route is traversed by the fast trains from Cincinnati to Chicago and also to St. Louis by the Vandalia line. The through trains from Cincinnati to Detroit or Chicago have vestibuled parlor, dining and sleeping cars, and afford delightful journeys through the pastoral scenery and enterprising cities of western Ohio.

The Canals of Ohio were built between 1825 and 1842, at a cost of $16,000,000. The Ohio Canal, 309 miles long, from Cleveland to Portsmouth, on the Ohio River, has 152 lift-locks. The Miami and Erie Canal extends from Cincinnati to Toledo, 250 miles.

Finance. — The State debt decreased between 1880 and 1890, from $10,000,000 to $7,000,000. There are 200 National banks in Ohio, with a vast volume of financial business.

CINCINNATI: FIRST NATIONAL BANK.

The First National Bank of Cincinnati is one of the old reliable institutions of the city, and indisputably the largest and foremost National bank in Ohio. It was organized in 1863, with a capital of $1,500,000. In 1879 this capital was decreased (by repurchase of the shares) to $1,200,000, which amount has continued unchanged, although the surplus and undivided profits are about $700,000. A marked feature of the bank is its conservatism, both as regards changes in the management and the character of its depositors. In its whole career of 28 years it has had but two presidents; and four of the eight directors have remained on the board during the entire life of the corporation. Its depositors are almost entirely derived from the mercantile and manufacturing interests of the city. The bank statement of July 18, 1890, to the comptroller credited them with a capital of $1,200,000, surplus $240,000 and undivided profits $418,716. The amount on deposit was $4,629,987, and there were well-secured loans amounting to $3,771,377. They are correspondents of the First, Third, Fourth and Western National Banks of New York, and have extensive relations with the banking interests of London. L. B. Harrison is the president, and W. S. Rowe the cashier, The First National Bank building is one of the neatest architectural specimens of office structures in Cincinnati.

CLEVELAND: THE VIADUCT.

Manufactures employ 230,000 operatives and a capital of $200,000,000, with a yearly product of $400,000,000, nearly half of which comes from Hamilton and Cuyahoga Counties. Ohio is one of the leading States in making green and window glass and glass-ware, and has large works at Findlay and East Liverpool. One fourth of the agricultural implements of America are made at Columbus, Akron, Springfield and Canton. Rolling-mills employ thousands of men at Cleveland, Columbus, Youngstown and other points.

Perhaps no metal goes into such a variety of shapes and into such unlimited uses as iron. It is certain that there is no mineral so universally abounding. From the great walking-beam of the mammoth steamship to the tiny hairspring of a lady's watch the variety of shapes and uses of iron is endless. The ease with which it is now worked is re-

markable. When the glowing red coil of metal is shot out from between the rolls, and is trained along over conductors to the mill-yard, it does not resemble the dull ore that went into the smelter at the other end of the works. At Cleveland there are many industries using iron in enormous quantities, in rolling-mills, furnaces, foundries, and the works of machinists, tool-makers, ship-builders, and others. Here, too, is one of the greatest ports for receiving and forwarding ores and pig iron and coal. So naturally there have grown up several great and wealthy houses, whose business as factors, brokers and merchants is to act between the consumer and producer of these staple commodities. The representative house at this time is the firm of Pickands, Mather & Co., of Cleveland, one of the largest in the country devoted to pig iron, and dealing in the native ore and coal. They are extensively interested in various furnaces converting ore into pig iron. The firm dates back to 1882, and since that time has always been an energetic house. Not only are they interested in iron furnaces in Cleveland, but at other Ohio points, and in Pennsylvania and Michigan as well, altogether making a daily output of about 700 tons of pig iron. They operate their own fleet of vessels, in bringing the ore from the mines down the lakes to the principal distributing ports; and have at these ports their own docks, to which the vessels go directly to discharge, and which are equipped with the most modern machinery for economically and quickly unloading the vessels. This is best illustrated by a statement that a steamer carrying as high as 2,800 tons of ore arrives at the docks in the morning, and is discharged, fueled, and ready to leave the port again for the next cargo by sundown. In addition to the above lines, the firm is a large handler of coal, and the business transacted annually amounts to many millions of dollars.

CLEVELAND:
IRON-ORE VESSEL OF PICKANDS, MATHER & CO.

CLEVELAND: BROWN'S PATENT MOVABLE BRIDGE TRAMWAY SYSTEM.

Labor-saving machines are revolutionizing all kinds of industry. Spinning is now almost entirely mechanical, and weaving still more so. The coal-miner's pick is rapidly becoming a thing of the past, as the new electric coal-diggers are being put on the market. Even the work of longshoremen and hod-carriers is now being done by machinery. The slow and laborious method of discharging or loading a vessel is almost entirely done away with, while hoisting machines and tramways neatly and speedily do the same work. The Brown Hoisting and Conveying Machine Company, of Cleveland, organized in 1881, and having a capital of $100,000, devotes itself to manufacturing labor-saving machines of this nature. Alexander E. Brown, the originator of the concern, and still its general manager, is a genius in this line of invention. In fact, it requires an inventor to apply this same system of hoisting and conveying to its various uses, and for the construction of the same to suit the varied conditions of surroundings where the apparatus is to be used. The Brown system has been exceedingly successful for handling ore and coal, and their traveling crane for ship-builders' use has accomplished a remarkable saving of time and

CLEVELAND:
BROWN HOISTING AND CONVEYING MACHINE COMPANY.

labor, in handling the heavy plates used in the construction of armored vessels, iron boats, and similar works. Besides the coal and ore and other tramways, they manufacture furnace-hoists for the automatic charging of blast-furnaces and kilns, which dispense with the employment of top-fillers; all operations being conducted by one man located at the engine at the base of the hoist. The concern also makes cantilever derricks, power and hand-traveling cranes, automatic dumping buckets, and many other similar articles.

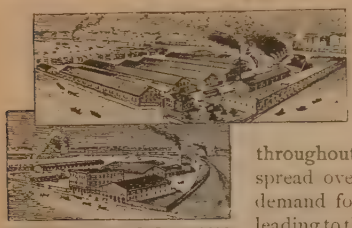
Worcester R. Warner and Ambrose Swasey, the two members who constitute the firm of Warner & Swasey, began the manufacture of machinery in 1880, with a small force of skilled workmen, who came with them from New England. From the first there has been a growing demand for their products, until now they employ a force of 150 men, and their large factory is filled with the most modern tools and appliances especially adapted to their work. Among the specialties which they manufacture are astronomical telescopes and domes, and machine-tools for iron and brass work. This firm has made for many of the leading colleges and observatories of the country telescopes and domes which are noted for their excellent workmanship. The equatorial telescope mountings, designed and built by them, vary in size from the four-inch aperture to the 36-inch telescope for the Lick Observatory, on Mt. Hamilton, Cal., which was erected by them in 1888. The steel observatory domes built by them, although in many cases very large in diameter and necessarily very heavy, yet by means of their improved anti-friction running mechanism they are made to revolve with great ease, a requisite highly appreciated by astronomers. Among the domes recently erected are two for the new Naval Observatory, at Washington, one of which is 26½ feet and the other 45 feet in diameter. In the line of machine-tools, which represents a large proportion of their production, while making a general variety of iron and steel-working machinery, they give special attention to the designing and construction of machinery, tools, and fixtures, and the equipment of plants for the manufacture of brass goods for steam, gas, and water. By their improved methods in this direction they have been able to greatly reduce the cost of the manufacture of such goods, and for this reason, and also because of the excellent quality of their machinery, they have found a ready market in this country and in Europe among the leading manufacturers.

CLEVELAND: WARNER & SWASEY.

It does not require a very aged man to remember the first train of cars that ran in the country. The South-Carolina Railroad, completed in 1833, was the initial railroad in America. The improvement in the building of cars is never-ceasing. In 1849, 16 years after the first railroad in the United States, the manufacture of rolling-stock in the West was begun at Dayton by E. E. Barney, who died in 1880. The first firm name was Barney, Parker & Co.; then Barney, Smith & Co. followed, and continued under that style until 1867, when the Barney & Smith Manufacturing Company came into existence. The corporation started with $500,000, but this was increased to $1,000,000; and now the property involved is worth several times that sum. Their plant covers over 30 acres, and they employ 1,800 men. It is one of the largest and best-constructed manufacturing plants of any character in America, and is an industry in which the State of Ohio takes great pride. The an-

DAYTON: BARNEY & SMITH MANUFACTURING COMPANY.

nual pay-roll amounts to $1,000,000. An idea of the magnitude of the business can be obtained from the fact that 20,000,000 feet of lumber are consumed every year. This means an annual business of over $3,000,000. The average capacity of the works is 15 freight-cars and one passenger-car a day. They are one of the largest car-building houses in the world; and the cars as they come from these enormous shops show the results of art, skill, ingenuity, and mechanism of the highest order.



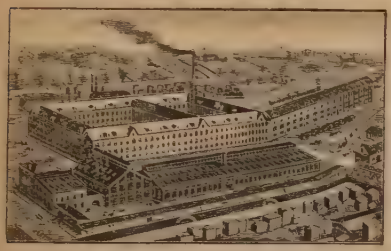
COLUMBUS: KILBOURNE & JACOBS MANUFACTURING CO.

The increase in manufacturing in all lines throughout the West has been phenomenal. As the population spread over the open country, establishing thriving towns, the demand for increased railroad facilities became imperative, thus leading to the greatest and most rapid era of railroad building ever recorded. This necessitated the invention and manufacture of improved machinery for moving the large amounts of earth for grading the road-beds of the new lines, and this demand led to the establishment some 17 years ago of the Kilbourne & Jacobs Manufacturing Company, in Columbus. They began in a small way, by manufacturing the common drags or dump-scrapers; but by energy, push and inventive genius, have now grown to a corporation of $500,000 capital, with a surplus of $100,000. They manufacture the latest improved machinery for earth-moving, including wheel scrapers and steam shovels, with which earth is at present moved at about a fifth the cost of carts and wagons. In addition to this, they manufacture trucks, baggage-barrows, and express-wagons, with which a large majority of railroads and jobbing houses are now furnished by them. Their specialty, however, is steel stamped, or drawn ware, from which articles heretofore cut and riveted are now drawn from one sheet of solid metal into any shape desired. This is an entirely new industry, and the various forms which sheet-steel can be made to assume under great pressure are almost inconceivable. Steel one fourth of an inch thick can be drawn into steel sinks, bath-tubs, and other similar articles, or made of lighter material into bottles, balls, and boxes. Their main works cover 14 acres; and their wheelbarrow works, which produce from 600 to 800 barrows daily, are adjacent, and cover eight acres of ground. This is a typical American company, which by their enterprise and energy are at present sending goods to all parts of this and foreign countries.

With many other industries that developed West when the vast lumber regions were discovered was that of carriage-making. Formerly that business was confined almost exclusively to the East, but the matter of freight both ways was brought into the question, and factories began to spring up all over the West with the growing demand. These were the more numerous in Ohio and Michigan, owing to the proximity of the timber, iron and leather. In Cincinnati there is a long line of buggy and carriage makers, including some individually extensive concerns, producing, it is said, a greater number of these vehicles than is produced in any other one city. They are mainly a cheaper grade of vehicles. At Columbus, however, has developed the greatest buggy and carriage manufactory in this country. It is the Columbus Buggy Company, a concern known throughout America for its quantity and quality of carriages and buggies, making in value the largest output in this line. Allied with it, and in one sense its forerunner, is the Peters Dash Company, the original intent of which was the manufacture of carriage dashers and fenders, which were introduced by them in this country. The yearly output of this specialty is about

COLUMBUS: COLUMBUS BUGGY CO.

300,000 dashers. The business was founded in 1873, and has branches at Chicago, Omaha, Detroit, Cincinnati, Kansas City and San Francisco. They employ from 800 to 1,500 men, and have a yearly pay-roll of fully $500,000. The Columbus Buggy Company and the Peters Dash Company form the foremost single industrial establishment in Columbus, and their large group of fine and lofty brick factories is one of the interesting sights of Ohio's capital.



SPRINGFIELD: P. P. MAST & CO.

Farming is altogether different from what it was half a century ago. The introduction of farming implements for every specific part of the work has brought about the change. The immensity of the grain fields made it a slow job casting the seed by hand, and not only slow but very irregular. This apparent demand for something to give better accommodation was met by P. P. Mast & Company, who own the largest grain-drill factory in the world. The firm was started in 1854, and has continued in its present location in Springfield to the present time, the president, P. P. Mast, still at the head, being one of Ohio's citizens of world-wide fame, connected with several great industries and many public institutions. The plant covers about 20 acres of ground, and the area of floor-space is about 5½ acres. From 350 to 400 men are employed the whole year round, and the annual pay-roll amounts to $200,000. The products comprise all styles of grain-drills and machines for sowing seed broadcast. Although these are their specialties, they also manufacture cultivators, hay-rakes and cider-mills. P. P. Mast & Company have numerous branch-houses, all over the country.

As business is now being conducted no firm feels secure without a safe or a vault, or both. The safe-deposit and trust companies necessarily have the most thoroughly constructed safes and vaults, and a great demand has sprung up for complicated locks. Combination-locks figure on even small office-safes, and banks and financial institutions and great corporations use the time-lock. Hall's Safe & Lock Company, of Cincinnati, are the largest manufacturers of safes, vaults and locks in the world. The business was started about 50 years ago, as a private enterprise. In 1867 the company came into existence as a corporation, with a capital stock of $350,000. The works cover 350,000 square feet of floor space, and employ from 700 to 800 men. The buildings, all of brick, cover two great squares in the business part of Cincinnati. The annual pay-roll amounts to nearly $500,000. The product comprises fire-proof and burglar-proof safes, and bank and safe-deposit vaults. They also manufacture combination and time locks. The highest award at the Centennial Exposition, in 1876, was given to this company. Hall's Safe & Lock Company is universally recognized as the largest safe and vault manufacturers in the world; and it is also said that they actually do double the quantity of kindred work of any other company. Their safes and vaults are to be seen all over the continent.

CINCINNATI: HALL'S SAFE AND LOCK CO.

The development of office appliances has grown much more rapidly in the past few years than most people imagine, and especially is this so in the various appliances for the rapid and orderly filing and preservation of papers. Every office and counting-room nowadays considers a filing cabinet of some kind an absolute necessity, the same as the office safe, the telephone and the writing machine; and as the demand for improved appliances has grown,

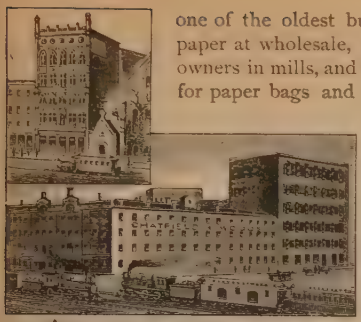
CINCINNATI; THE GLOBE CO.

it has naturally encouraged invention and enterprise on the part of manufacturers. The Globe Company of Cincinnati and New York, which stands at the front in its particular line, has achieved a marked success. The company was incorporated in 1882, and has had a marvelous growth in view of business and popularity. The extensive factory at the corner of Second and John Streets in Cincinnati, having a floor area of 60,000 square feet, employs 200 hands, while the factory in New York employs 50 hands. The class of goods turned out is filing cabinets of every description for letters and documents, fine office-desks, and also a number of smaller articles of paper stock, the latter manufactured especially for the stationery trade. The Globe Company takes a special pride in its furniture work, which is unsurpassed for construction and finish.

For some years past the manufacturers of straw board (better known to the public as paste-board) have been making but little money. The production was greater than the demand, and the competition was injudicious. To overcome this difficulty the leading mill-owners were induced to sell their plants to the American Straw Board Company, a great organization with able executive management, which proposed to serve the public with the best possible products at the lowest possible cost consistent with reasonable profit. This was in no way a trust: all the manufacturers and mills sold out entire, and lost their identity. The organization was effected in June, 1889, and the corporation, with a capital of $6,000,000, began business. The company operates 20 fine mills, giving a capacity from thirty-five machines, ranging from 44 inches to 104 inches in width. Ohio has mills of the American Straw Board Company at Lima, Dayton, Portage, and Circleville; and there are others at Noblesville and Anderson, Indiana; and at Quincy and Lockport, Illinois. These mills are in excellent order, and represent years of the keenest and ablest experience, and an actual investment of several millions of dollars. The plan of the company is to regulate the supply by the demand. When the latter falls off, as many mills as necessary are closed, and not started up until business is more brisk. The straw board and tar board turned out are of all qualities and varieties, to meet every demand, but the price-cutting, once the bane of the market, is now done away with, and yet without any injury to the consumers. The company owns and controls numerous patents. In the making of straw board lumber it has invented and introduced a new article of commerce that is destined to find an unlimited demand. This lumber is light, and not inflammable; is tough, and yet elastic; is durable, yet easily manipulated. It is prepared on its surface to resemble all woods, all metals and all minerals; and is made plain and embossed, in single color or variegated. One plant at Lima is used for making egg-cases. The company has branch offices at Boston, New York, Philadelphia, Cincinnati, and elsewhere; and its main office is in the Pullman Building, at Chicago.

NEW PORTAGE: AMERICAN STRAW BOARD AND LUMBER CO.

The manufacture of paper is now both a great and a peculiar industry, and the daily consumption is enormous, for newspapers, books, periodicals, wrapping, and hundreds of other uses. While the mills make the paper, and to a certain extent dispose of their own product, there is in Cincinnati a jobbing-house known to the paper trade of the whole country, the Chatfield & Woods Company, the oldest and foremost in its line in the Ohio Valley. The business was originally started under the firm style of Chatfield & Woods, which was



CINCINNATI: THE CHATFIELD & WOODS CO.

one of the oldest business firms in Cincinnati. They not only handle paper at wholesale, and as agents for various mills, but also are large owners in mills, and some years ago established an extensive manufactory for paper bags and flour sacks. These latter two products are made of manilla paper, and require special machinery, some of which make the regulation Union bags. After the death of the senior member of the firm it went out of existence and was succeeded by two close corporations, The Chatfield & Woods Company, and the Chatfield & Woods Bag Company, which are collectively the largest house in this line in the West. The paper-bag factory is a large five-story brick structure, having a capacity of turning out many millions of paper bags of all sizes and varieties, by machinery, which receives the paper in a roll and delivers the bags all folded, pasted, and counted.

Since the first patent granted in 1836 for the manufacture of matches, the industry has grown enormously. Over 6,000,000 gross of matches of 14,400 matches to a gross are consumed annually in this country. A factory was built at Westville (Conn.) in 1830. Several others started in the East, including the Byam & Carleton in Boston, and the Swift & Courtney in Wilmington (Del.). Factories were started in Chicago in 1871, and later in St. Louis, and elsewhere. Among the earlier ones was the Barber Match Company of Akron, Ohio, established in 1847. This factory is the largest in the country, if not in the world, having a capacity of 100,000,000 matches per day. Other factories also started in the East and West. In 1881 29 of these were incorporated as the Diamond Match Company, a corporation which has grown to be one of the most successful manufacturing enterprises on the continent. It has a capital of $6,000,000, upon which dividends are regularly paid. The Diamond Match Company has, besides its factory at Akron, others at Boston, Westville, Wilmington, Detroit, St. Louis, and Oshkosh, and smaller ones elsewhere. The company's executive offices are in the Pullman Building, Chicago. The matches in use in every nook and corner of this country are almost exclusively those produced by the Diamond Match Company. The Diamond Match Company consumes 27,000,000 feet of pine lumber in the manufacture of matches annually, and 20 tons of paper and straw-board a day, all of which it manufactures. It has a tract of white pine in nearly one body of 400,000,000 feet, enough for many years' supply.

AKRON: DIAMOND MATCH COMPANY.

Cooperage deserves mention among the important and valuable manufactures. It represents an extensive industry, and the achievements of to-day in this line compared with the efforts of 20 years ago seem almost incredible. The Cincinnati Cooperage Company daily produces 6,000 complete and perfect packages. Their products are the highest grades of tight work, made from the choicest white oak only, and embracing packages for beer, ale, whisky, wine, lard, and lead. This concern is the largest of the kind in the world. Their plant at Cincinnati covers ten acres; and here they employ 500 men, the yearly pay-roll reaching $600,000. The

CINCINNATI: CINCINNATI COOPERAGE COMPANY.

stock of timber in their yards is never less than 5,000,000 staves, and the yearly consumption is many times that quantity. . They also use enormously of other materials, one large item being hoop-iron. They own extensive tracts covering thousands of acres of the best white-oak sections of Indiana, Kentucky, and Tennessee. In these localities they have mills continually making staves, and giving employment there to 1,000 people. Their stock is mostly transported to Cincinnati by water, their own barges and steamboats being occupied in this work. Outside towing service is also largely employed. The investment of this concern is over $1,000,000, and their large trade is due principally to the superiority of their products. Their appliances and processes are mostly their own inventions, and are used exclusively by themselves, so that no competition can interfere with the Cincinnati Cooperage Company.

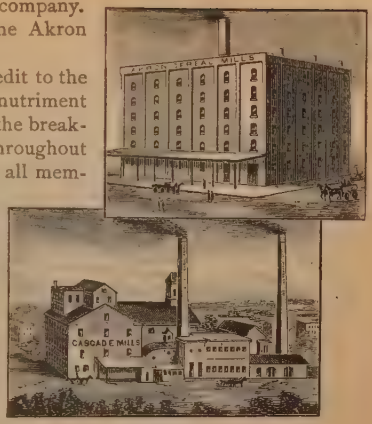
No city in the West is better equipped with machine-builders than is Cincinnati. Iron-working machines are made by several firms, and the wood-working machinery industry is represented by J. A. Fay & Co., the leading house in America in this line of machinery. In place of laborious methods of reducing lumber into the thousands of various forms in which it is used, this concern is furnishing improved machinery in the way of planing, mortising, tenoning, molding, sawing, and other machines that render the work of preparing the material and putting it together simply mechanical. J. A. Fay & Co. were the first to introduce these improvements on an important scale, their career dating back to 1834. In the year 1866 the firm of J. A. Fay & Co. was incorporated into a stock company, and it has a paid-in capitalization of $500,000. The plant occupies several buildings, and covers a floor-space of about seven acres, where over 400 men are employed. Their output comprises between 300 and 400 different kinds of machines for use in wood reduction. They have taken over 300 medals of gold, silver, and bronze at various international and State expositions. At Paris, in 1889, they were awarded the "Grand Prix," it being the first time that so distinguished an honor had been conferred upon any one distinctively engaged in the production of this class of machinery. W. Howard Doane, president of the company, received the decoration of the Legion of Honor, conferred by the French Government in acknowledgment of the many important inventions he has placed before the world. They have established branch-houses in Chicago and St. Louis, and have special representatives in the most important cities in the States, and at London, Paris, Hamburg, Sydney, and Melbourne.

CINCINNATI: J. A. FAY & CO.

Two questions which are receiving much attention from the health departments of all cities are those of ventilation and sewage. The improvements made in the latter are manifest. There are several different systems, but it has been demonstrated in numerous cases and in different countries that the use of sewer-pipe is far the best. The city of Akron is noticeable for the manufacture of an excellent vitrified pipe, used for sewers and drains. As the train draws into the city large quantities of pipe may be seen piled up in extensive yards. Likewise in yards in all the great cities of the Union Akron sewer-pipe can be obtained. The Akron Sewer-Pipe Company is the oldest and best-known manufacturer of this pipe, being the original and sole manufacturers of the celebrated "Standard Akron Sewer-Pipe." In 1848, D. E. Hill, the president and general manager, made his first piece of pipe; and he has been identified with this industry ever since. The present plant covers 25 acres, and the annual output is about 2,000 carloads. The capital stock of the company is $200,000. The managers of the Akron Sewer-Pipe Company also own and control the Hill Sewer-Pipe

AKRON: AKRON SEWER-PIPE COMPANY.

Company, whose works adjoin those of the former company. Besides being the oldest industry of this kind, the Akron Sewer-Pipe Company does the largest business.



AKRON: AKRON CEREAL MILLS OF THE F. SCHUMACHER MILLING COMPANY.

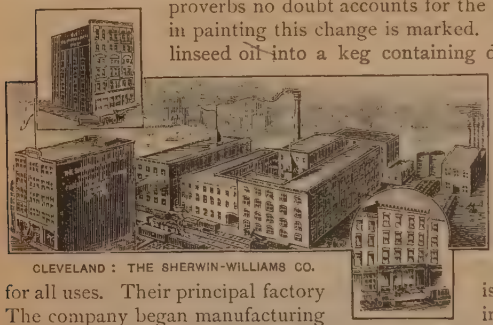
The superfine quality of cereal products is a credit to the enterprise of American manufacturers. Their nutriment and deliciousness are such that they can be used at the breakfast-table to the absolute exclusion of meat, and throughout the land there is hardly any food so acceptable to all members of the family, as a dish of porridge made of rolled avena, parched farinose or rolled wheat. These and other goods in that line are extensively manufactured by the F. Schumacher Milling Company, of Akron, Ohio, its president, Ferdinand Schumacher, now commonly known as The Oat-meal King, being the pioneer oat-meal manufacturer of the United States. He began on a small scale in 1856, and, gradually increasing his facilities, lost half a million dollars by a destructive fire on the morning of March 6, 1886. Nothing daunted, he immediately chartered a company with an authorized capital of $2,000,000. The plant consists of five mills, converting daily 14,000 bushels of wheat, oats, corn, barley, rye, and buckwheat into choice food for man and beast. To keep sufficient stock, and handle its grain to best advantage, the company has three elevators, a special grain-cleaning house, a dryhouse and a cooper-shop. Running night and day, the firm employs 300 men and 70 girls, putting up cereals in one and two pound packages. The annual output amounts to $3,000,000. The excellence of these products was recognized at the Paris Exposition in 1867, at Philadelphia in 1876, and wherever exhibited, so that to-day the F. Schumacher Milling Company is not only the pioneer but by far the foremost representative of this great industry.

A product of the most essential value to painters is white lead, which should, on account of its body, be the base of all first-class paints. The old and only reliable method of preparing it is known as the "Old Dutch Process." In this method of manufacture, refined lead is melted into thin sheets called buckles, and put into pots, in the bottom cups of which acetic acid is placed. Rows of these pots, massed into what are called tiers, are covered with spent tan in "corroding houses," and allowed to stand for 90 days. The latent heat in the tan volatilizes the acid in the pots, which attacks the lead, converting it into acetate, which is re-converted, by the decomposition of the tan, into a basic carbonate of lead. This carbonate of lead is then collected and ground in water through millstones, and dried, after which it is mixed with linseed oil and re-ground, forming commercial white lead. The Eckstein White Lead Company, of Cincinnati, is one of the largest companies in this business in the country, and their universally known "Phœnix" white lead is among the unsurpassed products in this line. Their plant covers four acres, on which are a group of substantial brick buildings. The machinery is all of the most improved pattern, great care having been taken in designing it, to guard the workmen from the poisonous lead dust. The capital stock at the time of incorporation, 1880, was $500,000, but it has been raised subsequently to $1,000,000.

CINCINNATI: ECKSTEIN WHITE LEAD CO.

The Eckstein White Lead Company, established in 1837, is also one of the oldest concerns in the West for manufacturing white lead.

A penny saved is a penny earned, and time is money. The combination of these two proverbs no doubt accounts for the hurry of all industrial methods. Even in painting this change is marked. No longer does the painter pour his linseed oil into a keg containing dry color or white lead, and stir for an hour, imperfectly mixing his paint. Now this work is done by machinery, and both paint and colors come more or less prepared ready for use. The Sherwin-Williams Company of Cleveland, Chicago and New York are the foremost in their line, as making thoroughly reliable paints and colors for all uses. Their principal factory is at Cleveland, and is very extensive. The company began manufacturing in 1873, and the growth of their business has been phenomenal. They manufacture the prepared paints, which bear the "Sherwin-Williams" name, oil colors, fresco colors, and quick-drying coach colors. They do all the work at their own factories, including the manufacture of tin cans, and printing of labels. The Cleveland plant consists of several large brick buildings, connected with each other by bridges, all located in the business center, with the best of receiving and shipping facilities both by rail and water. The Sherwin-Williams Company have also branch works and warehouses at Chicago, where all their Western business is conducted, and for the Eastern States at New York, with warehouses also in Boston, San Francisco and elsewhere.



CLEVELAND: THE SHERWIN-WILLIAMS CO.

The business of D. H. Baldwin & Co. was started in 1862 by D. H. Baldwin, whose wide experience in Ohio and Kentucky as a teacher of vocal music, and later in the public schools of Cincinnati, gave him a knowledge of the wants of the people, and enabled him rapidly to develop his business on broad lines then unknown to the piano and organ trade. Lucien Wulsin entered Mr. Baldwin's employ early in 1866, and in 1873 they formed the firm of D. H. Baldwin & Co. As the business increased, and a larger territory came under its influence, other employees, Van Buren, Armstrong, and Clarence Wulsin, were admitted to the firm, and the business was gradually formed into three great divisions — that in Indianapolis in 1872, and in Louisville in 1878. By these divisions, each managed by a resident partner, the trade is systematically controlled and pushed over the fertile and populous territory drained by the Ohio, Cumberland and Tennessee Rivers, including Ohio, Indiana, Illinois, Kentucky, Tennessee, West Virginia, and parts of Georgia, Alabama, Mississippi and Arkansas. High commercial integrity, care for the interest of its patrons, and systematic attention to its business, have made the firm one of the largest and most distinguished in the country in the piano and organ trade; especially distinguished by the thorough and complete system of distribution and sale, which it was the first to develop in this line. Its principal divisions with branches at prominent points and closely-related agencies permeate every part of the territory, and offer to the most distant buyer all advantages in selection, prices and terms which can be secured in the great competitive markets. The business thus partakes of the triple quality of the factor distributing manufacturers' goods, the dealer actually supplying the wants of the retail buyer, and the banker who receives and handles the proceeds of the sales.

CINCINNATI: D. H. BALDWIN & CO.

CINCINNATI: JOHN SHILLITO COMPANY.

One of the most notable dry-goods, or rather department, establishments in the United States is the John Shillito Company of Cincinnati. It was for a long time known as the "A. T. Stewart of the West;" for in the best days of Stewart, the grandest dry-goods house west of New York was the Shillito establishment. And it is noteworthy that even today, 13 years after its erection, it is rarely equalled. It is not only of immense proportions, but it has grandeur seldom found in kindred places. While the business is nominally dry-goods, it is in fact a bazaar, wherein can be found anything needed by an individual or a household, not only of the ordinary grades, but also of the finest quality, everything from a paper of pins to a handsomely upholstered parlor-suit. Few business houses have a better record. Over 60 years ago the business was started by John Shillito. He was succeeded in 1879 by his sons, and they in turn by the John Shillito Company, incorporated in 1882. The capital stock of $2,000,000 is all paid in, besides which a great surplus is invested. The buildings erected in 1878 have a floor-space of seven acres, and are of brick, six stories high, with basement and sub-basement, occupied entirely by the company. In addition to this, they own a large six-story building, in which are located the various workrooms of the establishment. Over 1,000 persons are employed. The building is lighted by electricity. The John Shillito Company is not only a preëminent retail establishment, but it is one of Cincinnati's leading wholesale houses, its dry-goods business extending into many of the Ohio-Valley States and throughout the South.

Among the most conspicuous wholesale and retail establishments of the interior States is that of A. E. Burkhardt & Company, of Cincinnati. The firm has an international reputation for the rare skill displayed in its fashionable creations, foremost among which are Alaska sealskin and high-class cloth garments. The store has admirable appointments, and the most complete and modern facilities for the transaction of the business in all its ramifications. The annual output of the wholesale and retail departments is enormous. They are the most extensive exporters of raw fur skins in America. Their wholesale departments supply the greater part of the Middle, Western, Southwestern, and many Eastern States, with the celebrated "Burkhardt" sealskin garments and fine cloth cloaks, for women, misses and children. The chief retail departments are replete with sealskin garments, furs, millinery, cloaks, men's hats and lingerie for women. The business is under the personal management of A. E. Burkhardt, whose knowledge of furriery covers a period of a quarter of a century. He is in constant communication with representatives in Paris, Berlin, London, and Leipsic; and though Cincinnati is an inland city, he brings to its citizens the refined and newest productions from the fashionable centers of the Old World, and has established the Queen City of the West as one of the few fur centers in this country. It is questionable whether there is a more handsomely fitted-up retail establishment in America.

CINCINNATI: A. E BURKHARDT & CO.

Many a housewife remembers how she used to stop the baker with a can and two cents for some yeast. It was not until 1869 that any other kind of yeast was introduced in this country or in Canada. Before that it was made of potatoes and hops principally. After the era of the liquid yeast came the dry-yeast period; and then the era of the compressed yeast cake, which still obtains. This was introduced by Fleischmann & Co., in 1869. The plant is located at Cincinnati, and covers 25 acres. Five or six thousand people

CINCINNATI: FLEISCHMANN & CO.

are in the employ of the firm; and 4,000 bushels of grain are used daily in their many factories all over the Union. The yeast is made of rye and malt, and has received several awards, including the highest award in the Centennial Exposition, in 1876. The capital employed by the firm is about $1,500,000, and besides their large plant in Cincinnati they have one of nearly as large size in Brooklyn (N. Y.). They are the largest manufacturers in their line in the country; and 1,000 wagons belonging to the company distribute every week, in all the cities of the Union, 3,500,000 cakes and 70,000 pounds of compressed yeast. In 1883 the business passed into the sole control of Charles and Maximilian Fleischmann, two brothers, originally from Austria, the land of light, palatable, sweet, and nutritious bread. The dainty little tin-foiled and yellow-labelled yeast-cakes are welcome visitors in millions of households.

A large part of the theatrical advertising is a work of high art, and the famous Strobridge Lithographing Company, of Cincinnati, has fairly earned the highest position in fine art lithography for show purposes. It stands first in this country and Europe in this line of work. All first-class amusement enterprises have frequent recourse to this attractive class of advertising. When colored lithography was first adopted, the work was not as artistic as it is now. The Strobridge Lithographing Company were probably the pioneers in producing art-lithography on a large scale, and the bill-boards and hoardings of both continents have been covered with bold and unique art works, executed by them, which would have been considered of rare merit for works of far greater durability than the ever-changing bill-boards. The corporation dates from 1867. The capital stock amounts to $300,000. They employ 125 men at their fine five-story brick structure, which covers a large space. The annual pay-roll amounts to $150,000. Most of the material used is domestic, but some grades of ink and all the lithographic stones come from Europe. While they make a specialty of lithographs for circuses and theaters and other amusements, they also have an extensive patronage for work for all commercial purposes. The Strobridge Company have several branch offices, and are taking orders in New York, London, and Sydney, Australia. A connoisseur can at a glance usually recognize the work of the Strobridge Company by its artistic excellence, in design, coloring, and adaptability to the purpose for which it is intended.

CINCINNATI: THE STROBRIDGE LITHOGRAPHING COMPANY.

The magnitude of the western farms is a matter of wonder to an Easterner when his eyes first wander over the seemingly never-ending fields of grain. These immense fields made farming not only a systematic, but a scientific industry. Threshing is done by machinery, winnowing is likewise, machines are now used to sow the seed, and reapers drive through the waving fields of grain and accomplish more in three hours than by the old way of harvesting could be done in a week. The improved mowing, reaping, and binding machines of to-day cut the grass and grain upon these immense fields; and the most important part of these machines is the cutting apparatus, the mower knives, serrated sickles and sections, the manufacture of which is carried on

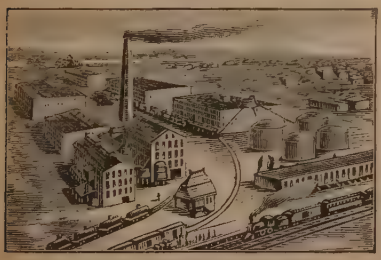
AKRON: THE WHITMAN & BARNES COMPANY.

as a specialty. The largest manufacturer of these goods in the United States, or in the world, is the Whitman & Barnes Manufacturing Company, of Akron, O., and Syracuse, N. Y. The company was incorporated in 1877, with a capital of $400,000; but to meet the wants of their business this capital has since been increased to $2,000,000. Additional factories have been put in operation at Canton (O.), and St. Catherine's (Ont.), and to better supply the wants of their large trade, they now have established branch houses at Boston, Philadelphia, Cincinnati, Kansas City, Chicago, and San Francisco, where large stocks of their goods are carried, from whence they supply their many customers throughout the United States. Their foreign trade is supplied direct from the factories. The present firm is the result of the combination of the Whitman & Miles Manufacturing Company, of Fitchburg, Mass., and George Barnes & Co., of Syracuse, N. Y., who entered the business 35 years ago. In addition to manufacturing knives, sickles, and sections, they are the largest manufacturers of spring cotters in the world, and make many specialties and repairs.

The improvements and discoveries in electricity have been so marked in the past decade that the public generally takes it as a matter of course that there should be something new every day or two. Electric-lighting has got to such a magnitude that it is considered less a luxury than a necessity. When the output of electrical apparatus was smaller the companies made all the parts themselves. Now the consumption is so enormous that it is not practical to follow this rule, and among other parts the carbons are made a specialty. The National Carbon Company, of Cleveland, is the largest company in the world that manufactures these carbons. The company succeeded the Boulton Carbon Company, and was incorporated under the Ohio laws in April, 1886. Their offices and works cover several acres of ground. The manufacture of these carbons is peculiar; the ingredient is lamp-black, and it is first molded or forced by great pressure into a mold and then baked. Frequently the carbons are cored. The company furnishes the carbons for the Statue of Liberty, on Bedloe's Island, in New-York Harbor. These are of special size, being $\frac{3}{4}$ of an inch in diameter, as against $\frac{7}{16}$ to $\frac{1}{2}$ an inch for ordinary lighting. They also furnish the Cowles Electric Smelting and Aluminum Works with special carbons. These convey the heat necessary to melt aluminum, which requires more heat than anything extant. These carbons are 50 inches long. The National Carbon Co. is now doing the largest business in their line in the world.

CLEVELAND: NATIONAL CARBON COMPANY.

Together with the advent of the highest degree of perfection yet attained in illumination, that of the electric light, a growing demand for the more primitive style, that of candles, is evident. It is now quite the thing to have a handsome candelabra at the dining-room table, and the coach-lights are growing more and more popular. There always was, and probably always will be, a steady demand for church use. The candles now used, however, resemble very slightly the candles of 50 years ago. Those were "dips," while the candles of the present day are manufactured by machinery. The Emery Candle Company, of Cincinnati, are the largest manufacturers of machine-made candles in this country. They have works at Ivorydale which cover ten acres of ground. The company was incorporated in 1887, with a capital of $500,000. Previous to this, however, the firm was in existence back for some 50 years. Their specialties are triple-pressed candles, which are hard and white. The Emery family, who established and operate these works, are among the wealthiest families of the city.



CINCINNATI: EMERY CANDLE COMPANY.

At Columbus is the interesting plant of the Jeffrey Manufacturing Company, famous for the manufacture of special mining machinery, made under patents covering inventions of Mr. Jeffrey and his associates. The Jeffrey coal-mining machines and drills are run by compressed air and electricity; and the company furnish also complete mine equipage, including electric motor cars for haulage in mines. They are also extensive manufacturers of the chain belting, which has proved of such great value in transmission of power for elevators, conveyors, and other uses. These belts are used in all lines of industry, coal and ore elevators, river and harbor dredgers, and conveyors for saw-dust, dry and spent tan, straw and pulp, ores, coal, and clay. Many large factories use them. Besides chain-belting and coal-mining machinery and mining engines, they make several mechanical specialties. Their plant covers several acres, and is completely equipped with the newest and best machinery. They employ 150 men. The product of this company is shipped to every State and almost every country.

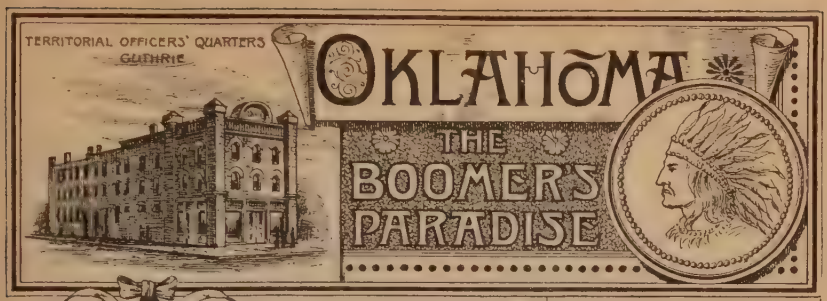
COLUMBUS: JEFFREY MANUFACTURING COMPANY.

Iron and metal cutting and punching, such as is common in boiler-work, ship-building, car-shops, architectural iron-work, wagon, carriage and implement works, has grown to such dimensions that there is a universal demand for power punches and shears. The power of some of these machines is enormous, and to see one of them punch a four-inch hole through a bar of iron two inches in thickness, or cut off a four-inch square bar of iron or steel, with the ease that one could drive an awl through a pine shingle, or sever a cotton wrapping twine, gives an idea of strength and usefulness. The Long & Allstatter Company, of Hamilton, are the most extensive builders of punching and shearing machinery in this country, and to meet the largely diversified wants of the users of such machines for light as well as heavy work, make a complete assortment of punches and shears in over 350 different styles and sizes. The company was organized in 1869, and incorporated in 1878, with a capitalization of $200,000. Their works are very large, covering several acres of ground, and consist of one main building, four stories high, 230 feet front, with four ells, each 136 feet long, running back from it, the machine-shops occupying two of them. Near the main shop is the foundry and pattern shop, the former equipped with heavy cranes for handling castings. Besides power punching and shearing machines, they manufacture straightening and bending machines, and machines for welding tires. They have also a valuable line of cultivators, sulky hay-rakes, and corn and fodder cutters, all of which are extensively used.

HAMILTON: LONG & ALSTATTER COMPANY.

At Sandusky is one of the factories of the American Wheel Company, of Chicago, which now controls the wheel industry.

SANDUSKY: AMERICAN WHEEL CO.



HISTORY.

Oklahoma was originally part of the Indian Territory, set apart for the five aboriginal tribes from Georgia, Florida, Alabama and Mississippi. The eastern part afforded more than land enough for them, and the remoter and less desirable west lay empty and unoccupied. The revolt of many of the Five Nations during the Secession War, and their conquest by Federal troops, necessitated a re-affirming of the grants and patents made by the Government to the tribes. In this new adjustment permission was given to the United States to buy the unused lands in the central and western parts of the Indian Territory, for the purpose of settling freedmen and wild Indians upon them. The Government purchased millions of acres of their unoccupied western lands from the Cherokees, Seminoles and Creeks, and placed upon this domain several wild tribes. The central part of the Indian Territory, known as Oklahoma, and covering 2,000,000 acres, came within this purchase, and remained unoccupied. The whites claimed it as public land, available for settlement; but the Creeks maintained that they sold it only for Indian and freedmen's occupancy. In 1889, therefore, the Government re-purchased Oklahoma from the Creeks, at a greatly advanced price. The white inhabitants of the neighboring States had long looked upon these lands with desire, and after 1879 frequently moved across the border to occupy them, under the lead of Capt. Payne and other adventurers. But as often as they entered the coveted domain they were ejected by the United-States troops patrolling the frontier. At last, on April 22, 1889, President Harrison proclaimed the opening for settlement of 1,400,000 acres of Creek land and 500,000 acres of Seminole land. Great processions of "boomers" poured into the new territory, and within half a day the city of Guthrie arose, with 10,000 inhabitants, and other cities sprang up on the prairies.

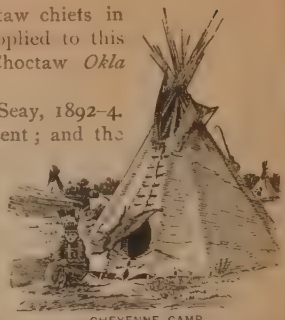
STATISTICS.

Settled at	Guthrie.
Settled in	1889
Founded by	Americans
Opened for settlement,	1889
Organized as a Territory,	1890
Population in 1890 (U. S. Census),	61,834
Indians,	5,689
Vote for Delegate (1890),	
Republican,	4,478
Democratic,	2,446
Banks,	6
Area (square miles),	39,030
Delegate to Congress,	1
Newspapers,	30
Latitude,	34° to 37° N.
Longitude,	96° to 100° W.
Mean Temperature,	60°
Post-offices,	166

TEN CHIEF PLACES AND THEIR POPULATIONS. (Census of 1890.)

Guthrie (with E. and W. Guthrie),	5,333
Oklahoma City,	4,151
Kingfisher,	1,134
Norman,	787
Stillwater,	480
Frisco,	327
Edmond,	294
El Reno,	285
Reno City,	234
Lexington,	223

The Name *O-kla-homa* was suggested by the Choctaw chiefs in council, in 1882, and their delegate at Washington had it applied to this region. It means "The Home of the Red Man, the Choctaw *Okla* signifying 'Red,' and *Homa* meaning 'Home.'"


CHEYENNE CAMP.

Governors.—George W. Steele, 1890–1; Abraham J. Seay, 1892–4. The Governor and Secretary are appointed by the President; and the legislature is composed of 13 councillors and a house of 26 representatives, elected for two years, and meeting for 60 days every other year. The Supreme Court has three justices; and there are several minor courts. The laws are based on those of Nebraska.

Descriptive.—Oklahoma is about the size of Ohio, and borders on Texas and Colorado, Kansas and the Indian Territory. The face of the country is diversified with long green valleys, forests of oak, and many flashing streams. In the west begin the Great Plains, a long, rolling, almost treeless and arid region, which slopes imperceptibly upward to the Rocky Mountains, and is covered with bunch-grass and sage-brush, yucca and cactus, and saline deposits. The plateaus of the north rise nearly 4,000 feet above the sea. The country has a milder climate than that of Kansas, except for its cold northerly winds; and is thought to be well adapted for raising corn and other cereals, millet and wild hay, cotton and tobacco, and fruits.

The Atchison, Topeka & Santa-Fé Railway has a line running south from Arkansas City (Kansas) to Fort Worth and Galveston, crossing Oklahoma and the Chickasaw Nation. Another line traverses the Cherokee Outlet from Kansas into the Pan-Handle of Texas.

COMANCHE CAMP.

The original Oklahoma district, west of the Creek Nation, contains the chief towns in the Territory, Guthrie, Kingfisher, Oklahoma City, Norman, and others, and large areas of farming land.

The greater part of Oklahoma is still occupied by wild tribes of Indians, who rove up and down over lands set apart for them in 1867–8, but not patented to them. They receive regular supplies of money, clothing and provisions from the Government, and are ruled by agents appointed by the President, strengthened by considerable garrisons of regular troops near the agencies. The wild tribes are hardly touched by civilization (except in its vices), and still assemble for their cruel sun-dances and pagan festivals, practice polygamy and girl-selling, and look with haughty scorn upon their comfortable, peaceable and well-to-do brethren of the Five Nations. Considerable areas have been recently purchased from the tribes by the Government, and as fast as possible the individual Indians are being allotted suitable tracts of land in severalty. In eastern Oklahoma are the homes of the 400 Mexican Kickapoos, opposing allotment and schools, and living in tepees. Here also dwell the Iowas in rude tepees; 650 Absentee Shawnees, thrifty farmers, in log huts; 500 Citizen Pottawatomies, mainly French half-breed farmers; and 500 Sacs and Foxes of Illinois and Wisconsin, with whom are many Omahas of Nebraska and Chippewas of Minnesota. These tribes have been allotted lands in severalty; and on September 22, 1891, President Harrison proclaimed the vast unoccupied parts of their reservations opened to settlement.

PONCA WIGWAMS.

CADDO CAMP.

The Cheyennes, 2,229 in number, and Arapahoes (1,272), have their agency near Fort Reno, where six companies of soldiers are in garrison. In their domain are the Antelope Buttes, a group of sandstone hills, for generations well-known landmarks for travellers on the Plains. The Cheyennes are Algonquins, driven westward from the Red River of the North by the Sioux. About 50 years ago part of the tribe migrated, and became allied with the Arapahoes, the remainder (Northern Cheyennes) allying themselves with the Sioux. After the Colorado militia massacred 100 of them (largely women and children), near Fort Lyon, in 1864, the tribe flew to arms, and the war that ensued cost the Government $30,000,000 and hundreds of lives. In 1867–8 Hancock and Custer destroyed their villages. The Cheyennes and Arapahoes are turbulent and intractable, and for several years have been retrograding, abandoning their farms and other civilizing efforts. In 1892 their reservation was opened to settlement by presidential proclamation, the Indians having been placed on allotted lands. 50,000 people moved into it, to establish their homes on the old domains of the ghost-dancing tribes.

ARAPAHOES.

The pleasant country in the south, between the 98th meridian and the North Fork of the Red River, covers an area of 4,600 square miles, and is dominated by the Wichita Mountains, a singularly picturesque and beautiful range, with granite cliffs and pyramids. Their chief peaks, two leagues apart, are Mount Scott, 1,200 feet above the plain, and Mount Sheridan, with its craggy granite peaks; and Mount Webster and the old-time Rainy Mountain are famous landmarks in the same range. About 1,100 Kiowas, 1,600 Comanches and 350 Apaches occupy this great domain of smiling valleys and bright streams. Their capital, Anadarko, has 500 inhabitants. Half the men on the reservation are farmers, and there are several denominational schools at various points. Fort Sill is a seven-company post near the Wichita Mountains. Northward, between the Canadian and Washita Rivers, extends the reservation allotted to 300 Wichita Indians, who are dependent on the Kiowa and Comanche agency. The Wichitas are more advanced and civilized than the other wild tribes, and have farms and stock ranges.

The Comanches are of the Shoshone family, and once numbered 12,000, commanding the country from Mexico to Montana. They are the best horsemen in the world, and, withal, fierce warriors, whose prowess Osage and Pawnee, Mexican and American have often felt. Many of these fierce nomads are still wandering free over the Plains. Elsewhere in this reservation live fragments of various ancient tribes, 90 Delawares of Pennsylvania, 540 Caddoes of Texas, 145 Towaconies, 29 Wacoes of Texas, and 62 Keechies.

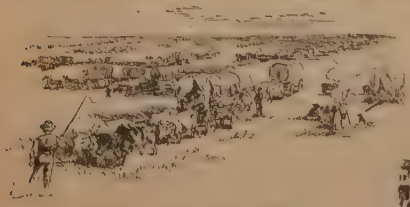
A BOOMER'S HOME IN OKLAHOMA.

Greer County covers 2,600 square miles of good land in southwestern Oklahoma, occupied by great cattle-ranches and by half a score of villages and 5,000 farmers. Mangum and Navajoe are the chief

OKLAHOMA CITY.

towns. Texas erected a county government here, and rules the domain as a part of her territory; but the United States refuses to acknowledge this claim.

The Cherokee Outlet covers 8,500 square miles, in the north, fit mainly for cattle-ranges, being afflicted with a scarcity of water, and with deposits of salt, shifting sand and gypsum hills. It was conveyed to the Cherokees by ancient treaties, and by the patent of 1838, and confirmed by the treaty of 1866, being intended for an avenue by which they could reach the hunting-grounds of the Rocky Mountains and Great Plains, on their own territory. In 1891 the United States purchased the Outlet for $8,595,736, making the little Cherokee nation the richest on earth. For many years the tribe leased this domain to the Cherokee-Strip Live-Stock Association, for $100,000 annually. Camp Supply is a six-company post in the western part. The eastern part of the Cherokee Outlet, a rocky and hilly region, was bought by the United States, for the homes of 1,500 uncivilized Osages, occupying 2,300 square miles, with their capital at Pawhuska; the Kansas tribe, 200 persons; the Pawnees, numbering 800; the Otoes, 320; the Missourias, and the Tonkawas. The Cheyennes and Arapahoes also have a claim to a part of the Outlet, as granted to them by the Government.



THE RUSH ACROSS THE BORDER.

PURCELL.

The Chilocco Indian Industrial School was founded by the Government in 1883, near Arkansas City, and teaches farming and mechanical trades to 200 Indian youths. The Cherokee Outlet extends westward only to the meridian of 100°, because, up to the Mexican War, that was the western boundary of the United States, on this parallel.

No Man's Land (called also the Public Land Strip, or the Neutral Strip) is a domain of 3,700,000 acres, lying west of 100°. It was ceded by Texas to the United States, because it lay north of Mason and Dixon's Line (36° 30′), and hence could not be taken into the Union as a part of a slave State. It long remained outside of the jurisdiction of the courts, and was infested by desperadoes, many of whom were shot by the citizens. In 1886 the 12,000 inhabitants organized the Territory of Cimmaron, but it was not recognized by Congress. In 1889 the jurisdictions of the United-States courts at Muscogee (I. T.) and Paris (Texas) were extended over this domain, which became a part of Oklahoma. The metropolis of this strange land is Beaver City, among the white sand-hills of the Cimmaron Valley; and here are found two churches, a Grand-Army post, an opera-house, and a brisk newspaper. There are more than a score of towns and villages in other parts of No Man's Land, which is 167½ miles long, and 34½ miles wide. Much of the region is covered with white buffalo-grass, and affords good opportunities for grazing.

CHILOCCO INDIAN INDUSTRIAL SCHOOL.

HISTORY.

A century ago five powerful nations laid claim to the domain between California and Alaska. Spain maintained that it was hers by virtue of the discoveries by Ferello in 1543 and Aguilar in 1603, and by more careful explorations of Perez, Heceta, Cuadra, and others in 1774–5. Russia claimed the country as far down as Tillamook Bay, as the reward of her seamen's daring voyages; and France cherished a hazy title on account of her explorations westward from Canada into Montana. Great Britain also claimed Oregon by virtue of the discoveries of Capt. Cook, in 1778, and Vancouver's surveys in 1792; and the Hudson-Bay Company moved into Oregon with its trading-posts and filled the country with adventurous fur-traders. In 1789 Spain erected forts on the coast, and seized British trading-vessels as trespassers; but in the following year she was forced to concede, by the Convention of Nootka, that traders and settlers under the English flag should have equal rights with Spaniards in the Northwestern country.

When the United States purchased Louisiana, it was held by some statesmen that this domain included also the Northwest Coast; but President Jefferson, through deference to Spain (which claimed it by discovery), forbore to push our frontier beyond the Rocky Mountains. Gen. F. A. Walker (*Census of 1880*), and the author of *The Public Domain*, attribute our title to Oregon to the Louisiana purchase. By the Florida Treaty of 1819, His Catholic Majesty ceded to the Republic "his rights, claims and pretensions" to the territory north of 42°. The Russian claims south of 54°40′ were ceded to Great Britain and the American Republic in 1821–5. Mr. Blaine bases the American title on the discovery of the Columbia River, in 1792, by Capt. Robert Gray, in the Boston ship *Columbia*, and its exploration from its sources to the sea, by Lewis and Clarke in 1805; and on the original

STATISTICS.

Settled at	Astoria.
Settled in	1811
Founded by	New Yorkers.
Admitted as a State,	1859
Population in 1860,	52,465
In 1870,	90,923
In 1880,	174,768
White,	163,075
Colored,	11,693
American-born,	144,265
Foreign-born,	30,503
Males,	103,381
Females,	71,387
In 1890 (U. S. Census),	313,767
Population to the square mile,	1.8
Voting Population,	59,629
Vote for Harrison (1888),	33,291
Vote for Cleveland (1888),	26,522
Net State Debt,	None.
Assessed Valuation of Property (1890),	$166,000,000
Area (square miles),	96,030
U. S. Representatives (1893),	2
Militia (Disciplined),	1,701
Counties,	31
Post-offices,	710
Railroads (miles),	1,428
Vessels,	185
Tonnage,	53,317
Manufactures (yearly),	$10,879,982
Operatives,	3,424
Yearly Wages,	$1,636,566
Farm Land (in acres),	4,428,712
Farm-Land Values,	$56,908,575
Farm Products (yearly),	$3,234,548
Public Schools, Average Daily Attendance,	40,012
Newspapers,	146
Latitude,	42° to 46°15′ N.
Longitude,	116°45′ to 124°30′ W.
Temperature,	—39° to 110°
Mean Temperature (Portland),	53°

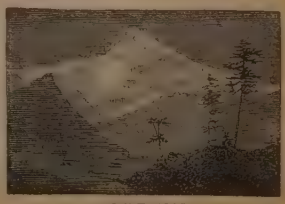
TEN CHIEF CITIES AND THEIR POPULATIONS. (Census of 1890.)

Portland,	46,385
East Portland,	10,532
Salem,	10,422
Astoria,	6,184
Albina,	5,129
Albany,	3,079
Oregon City,	3,062
Dalles,	3,029
Baker City,	2,604
Lagrande,	2,583

COLUMBIA RIVER: PILLARS OF HERCULES.

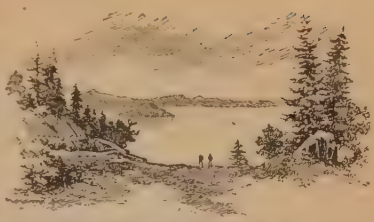
settlement of Astoria, in 1811. To these he adds the valid Spanish title, which passed to the United States by the Treaty of 1819. The theory of contiguity was also held by the Americans as strengthening their claim. The vast Oregon Country, whose ownership was thus left at issue between Great Britain and the United States, included Oregon, Washington and Idaho, and parts of Montana and Wyoming. But neither of the claimants knew or cared much for this remote and empty empire, and according to the Convention of 1818 (indefinitely extended in 1827), the two powers agreed upon a joint occupancy and use of the disputed country by their citizens. Neither nation organized any form of civil government; and the officers of the Hudson-Bay Company ruled the country, generally with wisdom and forbearance. The first trading-post on the Columbia waters was founded by the Missouri Fur Company, at Fort Henry, on Snake River (Idaho), in 1809. In 1810 Nathaniel Winship, representing a Boston company, entered the Columbia, and built a trading-post at Oak Point, 40 miles up. In 1832 Capt. N. J. Wyeth, of Massachusetts, established a fishery on Sauvies Island, where the Willamette River enters the Columbia; and two years later the Methodist missionaries Jason and Daniel Lee founded a mission at Salem. In 1836 Dr. Marcus Whitman and the Rev. H. A. Spalding and their young wives (the first white women who crossed the Rocky Mountains) traversed the Plains with the annual convoy of the American Fur Company, and entered the Columbia Valley, where they founded a mission of the American Board. Whitman perceived that Oregon stood at the point of being lost to the United States, and (in 1842) to prevent this disaster rode on horseback, in winter, to Fort Hall, Great Salt Lake, Santa Fé, Bent's Fort (Pueblo) and St. Louis, and thence by stage to Washington, which he reached in five months. He urged upon Webster and Tyler the fact that Oregon was worth saving for the Union, and then returned. Immigrants from the States had reached Oregon in 1841 and 1842, and were followed in 1843 by a caravan of 200 wagons and 875 people from Missouri. Whitman and his companion, A. L. Lovejoy, overtook this great convoy and guided it to the Columbia shores. When they arrived, they found there a strong provisional government, formed by the 500 trappers, missionaries and immigrants of 1841-2, without Federal authority, but establishing executive, legislative and judicial powers for the preservation of law and order. In 1846 the joint occupation by Great Britain and the United States was terminated by notice of the latter power, and a treaty was negotiated conceding the country from 42° to 49° to the American Government.

The Oregon pioneers had no organized civilization behind them, but were hemmed in between the sea and the mountains, and menaced by hostile savages. The Hudson-Bay Company's Canadian trappers and their Indian wives and half-breed children formed a large element, and it was not until 1860 that they abandoned Fort Vancouver, on the Columbia. The overland immigration poured thousands of Americans into Oregon, but many of them were drawn away by the California gold-fever. The Donation Land law, passed by Congress in 1850, did much to attract settlers. The erection of Oregon into a territory (in 1848) met with a strong opposition, and even Daniel Webster said that the region was "so far off that it could never be governed by the United States," and that a delegate to Congress "could not reach Washington until a year after the expiration of his term."


MOUNT HOOD.

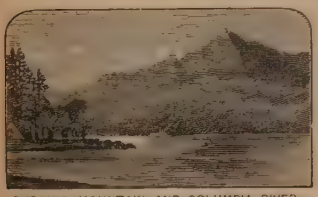
Joseph Lane, a veteran of the Mexican War, was for many years governor of, and delegate and senator from Oregon, and ran for vice-president in 1860, Breckenridge being at the head of the ticket. When the Union seemed to some to be on the point of dissolution, in 1861, a great wave of patriotic sentiment swept over the State. The United-States garri-

sons were sent East, and their places filled by the First Oregon Cavalry and other volunteers, who made many perilous campaigns against the Indians.


OREGON NATIONAL PARK: CRATER LAKE.

The Name of Oregon is of uncertain meaning and origin. Bancroft (*Hist. Oregon*, Vol. 1, pp. 17–25) reviews the theories of the name, and concludes that it was invented from Indian words (or possibly heard) by Jonathan Carver, while in Minnesota in 1766, as belonging to the distant and unknown River of the West. The word Oregon was printed for the first time in *Carver's Travels*, in 1778; made famous by Bryant, in his poem of *Thanatopsis*, in 1819; and fastened upon the Northwestern Territory by Hall J. Kelly, a Boston school-master and western immigrant, in 1834. Prof. J. D. Whitney (*Words and Places*) maintains that the name was given by the Spaniards, *Orejon* being an old Spanish word, meaning "big ear." The tribe of Pend' Oreilles (*Pendantes Oreilles*), dwelling on the upper Columbia, at that time cherished the custom of enlarging their ears with ornaments, and causing them to hang down. J. H. Trumbull thinks that Oregon comes from the Algonquin word *Wauregan*, meaning "good" or "fair," and applied to the Columbia River. Another theory derives it from the Spanish form of *origanum vulgare*, the Latin name of wild marjoram, which grows in abundance,

"Where rolls the Oregon, and hears no sound
Save its own dashings."

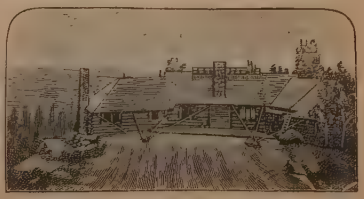

PYRAMID MOUNTAIN AND COLUMBIA RIVER.

Oregon is called THE WEBFOOT STATE, because of the humid climate of the coast counties. It is also known as THE SUNSET STATE, because it reaches a more westerly point than any other American commonwealth, except Washington (a newer State.)

The Arms of Oregon bear a landscape, with an emigrant wagon, and a deer, beyond which opens the sea, bearing a steamship and a brig. Below these devices is a scroll, with THE UNION written on it; and still lower on the shield appear sheaves of wheat, with a plough, rake and pick. The crest is the American eagle. The motto is ALIS VOLAT PROPRIIS ("She flies with her own wings").

The Governors of Oregon have been: *Territorial:* Geo. Abernethy, 1845–9; Joseph Lane, 1849 and 1853; J. P. Gaines, 1849–53; Geo. L. Curry, 1853 and 1854 9; John W. Davis, 1853–4: *State:* John Whiteaker, 1859–62; Addison C. Gibbs, 1862–6; Geo. L. Woods, 1866–70; Lafayette Grover, 1870–7; S. F. Chadwick, 1877–8; W. W. Thayer, 1878–82; Zenas Ferry Moody, 1882–6; Sylvester Pennoyer, 1886–95.

Descriptive.—Oregon is as large as New England and Indiana united, and twice as large as England; and if settled as densely as England it would have 40,000,000 inhabitants. The natural divisions are Eastern Oregon, including all east of the Cascade Mountains (except Lake and Klamath Counties); Southern Oregon, including the above counties and all between the Rogue-River and Siskiyou Mountains, out to the Pacific; and Western Oregon, between the Cascades and the Pacific, the Columbia River and the Rogue-River Mountains. The distance from the Pacific Ocean to Idaho is 360 miles, and from the Columbia River to California it is 275 miles. The sea-coast, 330 miles long, is lined by broken ridges, running northward from the Coast Range of California, and reaching from 1,000 to 4,000 feet in height. There is a broad strip of ragged country between the highlands and the sea, with


MOUNT HOOD: CLOUD-CAP INN.

MOUTH OF THE COLUMBIA RIVER.

several fertile valleys, reached by wagon-roads and railways from the Willamette country.

The magnificent Cascade Range traverses the entire length of the State, north and south, forming a huge maze of heavily timbered mountains, from 50 to 60 miles wide, 110 miles from the sea, and averaging 8,000 feet high. It is a great volcanic mass, and the connected basaltic plains form the floors of the Columbia, Willamette, Snake, Malheur and Owyhee valleys. This northerly extension of the Sierra Nevada derives its name from the turmoil of the Columbia traversing its rocky defiles. Mount Hood was discovered by Lieut. Broughton, R. N., in 1792, and named for Lord Hood. From the summit, 11,225 feet high, and not far from the Columbia River, there is a vast view of 150 miles in all directions. This noble and conspicuous volcanic crest, crowned with glistening snow, has often been ascended by the climbers of the Oregon Alpine Club. Prof. Whitney ranks the great isolated volcanic cones of the Pacific Coast as fairly on an equality, in picturesque effect, with the Alps or the Andes. Among the other remarkable peaks are Mt. Jefferson, 10,200 feet high; the craggy Three Sisters, fragments of a huge crater-rim; Diamond Peak, overlooking a tremendous line of dead volcanoes and lava flows; Mt. Scott, with gentle slopes of ashes on the east and immense igneous cliffs on the west; and Mt. Pitt (9,818 feet), commanding the Klamath Lakes and the Rogue-River Valley. The third of Oregon lying west of the Cascades is its most valuable part, amply dowered with forests, clear streams, and park-like expanses of prairie. Two thirds of this area lies in the Willamette Valley, 150 miles long, north and south, and 60 miles wide, and nearly all fruitful arable land, rich in wheat, with splendid farms and beautiful villages, heavy lowland forests alternating with loamy prairies, broad terraces and rolling foot-hills for woodlands or pastures, and bordering fir and pine forests seven leagues wide, darkening the mountains on either side. In this rural paradise the crops have never failed, and half of the population and wealth of the State is found here.

The Calipooia Mountains run from the Cascade Range to the Pacific, closing the Willamette Valley on the south. Beyond opens the Umpqua Valley, much smaller than the Willamette, with heavily rolling loamy lands, adapted for farming, and diversified by small forests, with enormous woods on the mountains. This, in turn, is walled in on the south by the Rogue-River Mountains, beyond which open the rolling table-lands of the Rogue-River Valley, covering 1,500 square miles, broken by many lofty spurs, and closed on the south by the high and rugged Siskiyou Mountains of California.

Eastern Oregon includes nearly two thirds of the State, averaging 2,500 feet high, and with a wide diversity of scenery and products, from the pasture-clad mountains and pleasant valleys of the north to the great grazing areas around Harney Lake, and the arid southern country, which requires artificial irrigation for maturing crops. When the gold-placers were exhausted, a large stock-raising industry arose here, and the region, carpeted with bunch-grass, became known as "the Stockman's Paradise." Latterly it has developed as a rich wheat region. The wooded Blue Mountains and Powder-River Mountains, from 8,000 to 9,000 feet high, separate the Columbia Valley from the Great Basin. The Umatilla Valley is a rich wheat country, with important sheep-raising interests, and several prosperous towns. The Grande-Ronde and other valleys in this region have valuable areas of farming lands, part of which are still for sale by the Government, the State and the railways. One of the largest tracts of agricultural land pertains to the Willamette-Valley & Cascade-Mountain Military Wagon-Road Company, to whom it was granted by Congress in 1866. It extends for 448 miles across Oregon,

BUTTES OF THE COLUMBIA.

from the Willamette Valley, near Albany, to the valley of Snake River, at Ontario, covering each alternate section in a belt six miles wide, and including 860,000 acres. The land is sold at from 50 cents an acre upward, for cash or on five years' time, with perfect titles and warranty deeds. This great strip crosses the Cascades near Mt. Jefferson, runs southeast between the Blue and Stein Mountains, and then descends the great Harney and Malheur Valleys to the Snake River, including parts of Linn, Crook, Harney and Malheur Counties. These lands comprise timber, agricultural and grazing lands, among the finest in the State, each and every 40-acre tract having been carefully selected. The Oregon Pacific Railroad follows nearly the line of the grant, and is now under construction, and will greatly enhance its value. The selling agents of this vast agricultural domain are Williams & Wood, of Portland, Oregon.

THE CROOKED-RIVER VALLEY, ON THE WILLAMETTE-VALLEY & CASCADE-MOUNTAIN MILITARY WAGON-ROAD.

South of the Blue Mountains begins the Great Basin, apparently as true a desert as Sahara, and running down into Nevada and Utah, with an area larger than that of France. It is not sand, but the more level tracts are covered with a fine volcanic soil, capable of wonderful fertility under irrigation. The rivers that pour their rushing crystal tides from the snow-clad ranges shrink away as they advance on the great plains, and are swallowed up in marshy sinks and shallow brackish lakes. Vast areas of lava-beds alternate with plains clad with sage-brush, dwarf pine and juniper, overlooked by rugged volcanic ridges. The grand range of the Stein Mountains traverses this country, forming the most conspicuous feature of southeastern Oregon. Several of the broad lakes that diversify the plateau are strongly alkaline, and when the heated season comes they dry up, leaving dreary mud-plains. They receive the waters of many brooks, but have no outlets, and so may be called miniature dead seas. Fish cannot exist in these solutions of potash and soda, whose only inhabitants are millions of brine-shrimp.

PAULINA VALLEY : ON THE WILLAMETTE-VALLEY & CASCADE-MOUNTAIN MILITARY WAGON-ROAD.

Crater Lake, in southwestern Oregon, is one of the deepest bodies of fresh water in America, the soundings passing 2,000 feet, while the sheer enwalling cliffs reach a height of from 800 to 2,000 feet. It is a body of clear, cold, deep-blue water, six by seven miles in area, filling a huge crater caused by the melting of the foundations of the mountain, and flowing over submerged cinder cones, 6,251 feet above the sea. Out from the transparent depths, the jagged peaks of Wizard Island rise, 845 feet high, and crowned with an extinct crater. Capt. C. E. Dutton, U. S. A., recently surveyed this mysterious lake, his soldiers having lowered their boats by ropes from cliffs 900 feet above the water. The five townships including Crater Lake have been set apart as the Oregon National Park, abounding in game and fish, and in hot and cold springs. The Upper and Lower Klamath Lakes cover 300 square miles, and are traversed by small steamboats, and bordered by marshes. Lake Wallowa, 6,000 feet high, on the Blue Mountains, is a beautiful basin of cold and crystalline water, inhabited by salmon-trout,

HARNEY VALLEY ON THE W.-V. & C.-M. M. W. ROAD.

PENDLETON.

and with a steamboat making voyages over its lofty mirror.

The noble Columbia River may be ascended by steamboats, with a few breaks, to within 450 miles of the navigable Missouri, and 350 miles of the Yellowstone. It has a navigable length of 1,200 miles, one fourth of which lies on the northern frontier of Oregon. The mouth is six miles wide, between the fortified headlands of Point Adams and Cape Hancock, and is traversed by an outer bar, with 25 feet of water at mean low tide. The United-States Engineers have straightened the channel, by means of a jetty five miles long, from Point Adams toward Cape Hancock, and hope to give it a depth of 30 feet at low water. The jetty improvements have made this entrance open to the largest ships. The river scenery varies from the level lowlands near by to the snowy peaks of the Coast and Cascade Ranges. For 30 miles from the sea the Columbia is from three to seven miles wide; and for 100 miles farther it has a breadth of over a mile. Numerous steamboats ply along this noble highway and its connected waters, from Portland to the Cascades and to Astoria. At the Cascades, 150 miles from the sea, the Columbia descends 40 feet, in a cañon 4,000 feet deep, cut through the lava-beds of the Cascade Mountains. The Lower Columbia lies below the Cascades; the Middle Columbia is the 40-mile reach between the Cascades and the Dalles; and the Upper Columbia lies above, with 190 miles of navigable water. At the Dalles the river begins its traversing of the Cascade chain, rushing swiftly through narrow cracks in sheets of lava. Several steamboats have safely descended through the Dalles and the Cascades, during periods of high water.

CORNELL ROAD.

The Government is building a canal 3,000 feet long at the Cascades, and contemplates a boat-railway at the Dalles, to make the entire length of the Columbia and the Snake navigable for grain-bearing steamboats. Travellers on the river rarely go above the Dalles, the main route being the Union Pacific Railroad, following the south bank from Portland. The grandeur of the scenery of the Cascade Mountains, where the Columbia River cuts through them, is heightened by many attractive bits of scenery. Prominent among these are the Multnomah Falls, descending 850 feet in a straight band of white waters, and forming one of the most picturesque and beautiful cascades in the world.

The Willamette River, rising in the western slopes of the Cascade Range, follows a northerly course of 200 miles to the Columbia. Large steamships ascend to Portland, twelve miles up, and smaller vessels can go up 126 miles farther, passing around the falls at Oregon City by locks. The Umpqua and Rogue Rivers are each about 200 miles long, and break through the Coast Range in deep and rugged cañons, amid profound forests. The Umpqua is ascended by small steamboats 30 miles to Scottsburgh. The rough, swift and cañon-bound Des-Chutes and John-Day Rivers, in the centre, are each 250 miles long; the Umatilla, Powder and Grande-Ronde are swift mountain-born streams in the northeast, with lovely valleys; and the greater part of the eastern frontier for 150 miles is formed by the tremendous basaltic cañon of the Snake River, which descends from the Yellowstone National Park. This powerful stream receives the Malheur River, 140 miles long; and the Owyhee, from the gray deserts of Nevada. Coos Bay maintains a line of coasting steamships to San

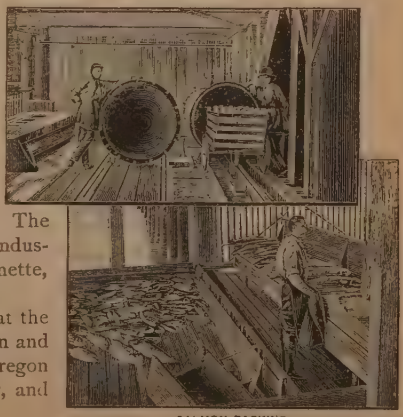
Francisco, whither it sends coal and lumber. Yaquina Bay has been improved by the Government, with long jetties, and has the deep-water end of the Oregon Pacific Railroad, and a line of steamships to San Francisco. Port Orford stands where the Rogue-River Mountains meet the Pacific; and Tillamook, Alsea, Siuslaw and other bays have a value for oystering and fishing, and the exporting of farm and forest products.

CLIFTON, ON THE COLUMBIA RIVER: J. W. & V. COOK'S SALMON-CANNERY.

The salmon-fisheries yield several million dollars a year, and the Lower Columbia alone has produced in a season over 600,000 cases, mainly of the quinnat salmon, averaging about 22 pounds each, though some have been caught weighing 80 pounds. They are taken in seines 300 to 600 feet long, and nets 1,500 to 1,800 feet long, with a depth of twelve feet, the head-fishermen being mainly Norwegians and Italians. There are 38 canneries between Astoria and the Cascades; and 1,600 boats, costing with their outfits over $2,000,000, have been engaged during a prosperous season. Since 1885 this industry has fallen off somewhat in quantity of pack. The pack in 1890 was 350,000 cases, besides enough fresh fish shipped away to have made a total of 450,000 cases. Fresh-fish shipment to eastern markets is a new industry. The Government hatchery is now putting 5,000,000 young salmon in the river annually, which will soon increase the pack again.

PORTLAND: PACIFIC COAST ELEVATOR CO.

A typical salmon-cannery is that of J. W. & V. Cook, on the banks of the Columbia, at Clifton, Clatsop County. This establishment was founded in 1874, and has put up 400,000 cases of salmon, valued at $2,000,000. It employs 175 men during the fishing season (from April 1st to August 1st), and has a large group of buildings, including the packing-house and warehouse, besides very long net-racks. The famous Medal brands of salmon and salmon steaks put up here have won the highest awards at the expositions at Philadelphia, London, Paris, Melbourne and Sydney. They are shipped direct to foreign countries, as well as to the San-Francisco markets and the cities of the East. The growing demand for canned fresh fish will for many years be supplied from scientifically conducted establishments like this of J. W. & V. Cook, on the Columbia.



SALMON PACKING.

Halibut, herring and smelt, and many other fish are found abundantly in the Oregon waters. The shipment of sturgeon has also become a large industry. They are caught in the Columbia and Willamette, and sometimes weigh 600 pounds.

The State has many great water-powers, at the Cascades and the Dalles, at Salem, the Tualatin and other points. The falls of the Willamette at Oregon City, give force equal to 300,000 horse-power, and have been improved. The descent is 40 feet.

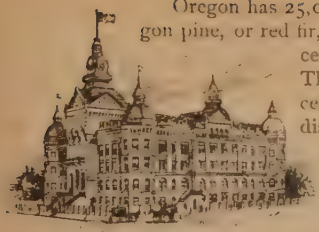
Along the resounding Pacific Ocean, Oregon has several popular beach-resorts, like Newport and Yaquina, near the grand headland of Cape Foulweather; and Clatsop Beach, curving around to Tillamook Head, 18 miles from Astoria, where the hotels and cottages accommodate thousands of summer idlers. Inland, at the hot springs of Linkville, and at Hot Lake, near Union, in the remote east, new health-resorts are springing up.

The Climate west of the Cascade Range is mild and equable, with the extraordinary rainfall of 67 inches along the coast, and 50 inches in the Willamette Valley. When the Californians have a long rainy season they call it "Oregon weather;" and when a season of heat and dust invades the Sunset State, the people revile it as "the sort of climate they have down in California." The Cascade Range robs the ocean-winds of their moisture, which falls on the western slopes, and the winds go eastward dry and arid. The Upper Columbia valley receives from 18 to 22 inches of rain, never failing to have enough for the production of fall-sown wheat. The Great Basin gets only from nine to 15 inches of rain yearly. The temperature of the coast valleys is comparatively equable, but that of the east shows great extremes. The ice on the Lower Columbia and the Willamette rarely forms thicker than one inch, and the snows are light and dry, and quickly pass. This genial climate is due to the southwestern trade winds. Careful observers credit Oregon with six climates; the rainy, foggy and equable outer coast; the warm and smoky summers, rainy winters, and mild and damp mid-seasons of the Willamette country; the mild and even summers and winters, and fair rainfalls of the Umpqua Valley; the greater diversity and dryness of the Rogue-River Valley; the wide extremes and arid summers and heavy snows of the southern lake-country; and the bracing mountain air of northeastern Oregon, with cold winters and hot summers. The yearly temperatures of Astoria, Portland and Ashland are above that of Philadelphia, 400 miles farther south, and the range of the thermometer is much less. The lake-country has a yearly average colder than that of Boston. Consumptives cannot live west of the Cascades, but find health on the high eastern plateaus. East of the Cascade Mountains is a plateau of 220 by 240 square miles, abounding in nutritious bunch-grass, and hence well adapted for grazing. The insignificance of the rainfall prevents a general use of these lands for farming, except in the north, along the John-Day, Umatilla and Des-Chutes Rivers.

MULTNOMAH FALLS.

Agriculture is largely diversified, being generally favored by soil and climate. The great staple is wheat, of which 15,000,000 bushels have been produced in a year, two thirds of it from the dark loam of Eastern Oregon. It averages 30 bushels to the acre, and is of unusual weight and fullness. The product of oats is above 6,000,000 bushels; flax, rye, barley and buckwheat form large crops; and corn is raised in the south. The Willamette hop-gardens, harvested by Chinese labor, yield 2,500,000 pounds yearly. Fruits and vegetables are brought forth in great quantities west of the Cascades; and there are immense establishments for drying and canning them. A million fruit trees have been planted since 1885. The prune-orchards of the Willamette Valley are among the best in America; and the apple-orchards yield 2,500,000 bushels. About 600,000 tons of hay are harvested yearly.

The raising of cattle is favored by illimitable natural pastures of bunch-grass, especially on the nearly rainless plains of the southeast; and there are 700,000 head kept in the State. The chief dairy farms are in the Willamette Valley and along the coast. Live-stock remains out-doors all winter, fattening on the sun-cured bunch-grass of the east and the perennial Willamette pastures; and of late years the herds have been greatly improved in breed. Vast numbers of cattle are sent to the Eastern markets. The wool-clip exceeds 16,000,000 pounds a year, the fleeces being of excellent weight and quality. There are more than 2,600,000 sheep grazing along the mountains during the summer.



PORTLAND: THE CITY HALL.

Oregon has 25,000 square miles of woodlands, including the famous Oregon pine, or red fir, the finest ship timber in the world, with red and white cedar and hemlock, oak and maple, cottonwood and ash. The lumbering interests are very extensive. The firs and cedars are of giant growth, logs from four to ten feet in diameter going into the mills daily. Most of the mills are on Coos Bay, at Astoria, and along the Lower Columbia; and at Portland, where there are a dozen mills. Lumber is shipped by rail as far east as Omaha, and by sea to San Francisco and the Pacific ports of North, Central and South America, the Sandwich Islands, Australia, Japan and China. This industry is growing rapidly.

Minerals.—The Coos-Bay coal-field begins near the Coquille and runs north to the Umpqua, going inland nearly 20 miles, a region of rugged hills broken by narrow estuaries. The winter storms sweep this coast with fearful power and peril. The chief mines are at Marshfield, and their product reaches from 30,000 to 50,000 tons a year of lignitic coal. Oregon has large deposits of iron-ore, and at Oswego, five miles from Portland, the Oregon Iron and Steel Works make 50 tons of pig-iron daily. It is a brown hematite of excellent quality, in a vein from six to 15 feet thick.

Gold and silver have been produced to the amount of $1,000,000 yearly, largely from the deep placers of the southwest, whence it is extracted by the hydraulic process. The gold and silver mines of the Blue Mountains have been worked for many years, with varying success. The placer-mines of Baker County have yielded over $20,000,000; and those of Jackson County, $30,000,000. Chrome ore is mined in Southern Oregon; nickel at Riddle, in the Umpqua Valley; manganese, in Columbia County; copper, in Josephine County; and quicksilver near Oakland. The State has quarries of lime, basalt, brick-clay, granite, marble and sandstone.

PORTLAND: CHAMBER OF COMMERCE.

The Government of Oregon has its headquarters at Salem, where the handsome classic State House (built in 1873–89) looks out upon the snowy peaks of the Cascades. Salem also has the Penitentiary, with 300 convicts, making stoves and brick; the Institute for the Blind; the School for Deaf Mutes, and the Asylum for the Insane (with 600 inmates). The Oregon National Guard was organized in 1883, by the union of several independent companies into a battalion, which did good service during the anti-Chinese agitation of 1886. The next year the legislature provided for the organization and equipment of a brigade of three regiments. The First Regiment has a strong and handsome armory at Portland.

Education has been richly endowed with National land-grants, and is carefully guarded by the Oregonians. The normal schools are at Monmouth, Drain, Ashland and Weston. The University of Oregon was founded by the State, at Eugene City, in 1876, and has a large National land-grant, and receives yearly legislative appropriations. It includes 100 students, besides a large preparatory school, and a medical school at Portland. The State Agricultural College, at Corvallis, owns large endowments in land and funds. Willamette University received incorporation in 1853. It has a college

PORTLAND: STEEL BRIDGE OVER THE WILLAMETTE.

of liberal arts, a woman's college, a conservatory of music, an academy, and the affiliated academies at Wilbur, Sheridan, the Dalles, Lebanon and Drain. Its law and medical schools are at Portland. This great Methodist institution occupies an estate of 18 acres at Salem, in the Willamette Valley. The Congregationalists in 1849 organized at Forest Grove, Pacific University, which now has 24 students, besides 110 in its Tualatin Academy. Other sects conduct small colleges at Philomath, McMinnville and Monmouth. The Catholics have academies at Portland, Salem, the Dalles, Baker City, Mt. Angel, St. Paul, Jacksonville and Gervais; the Episcopalians, at Portland (the Bishop-Scott Academy for boys and St. Helen's Hall for girls), Astoria and Cove; and there are other academies at Bethel, Portland, Newberg, Jefferson, Dallas, Harrisburg and the Dalles.

PORTLAND: FIRST REGIMENT ARMORY.

The Indian Training School at Chemawa, on Lake LaBish, near Salem, has 180 boys and girls from 30 tribes, under careful instruction in the grammar-school branches, and also in carpentry and blacksmithing, tailoring and farming, and other useful industries.

The National defences at the mouth of the Columbia, Fort Stevens, on Point Adams, and Fort Canby on Cape Hancock, have long been abandoned for military purposes. So also with the fortified posts in the Indian country, the last of which, Fort Klamath, was evacuated in 1889. The Oregon coast is beaconed by the lights at Cape Blanco, Cape Arago, Cape Foulweather, Tillamook Head or Cape Meares, Point Adams, and more than a score along the Lower Columbia and Willamette Rivers.

PORTLAND: FIRST NATIONAL BANK.

The Finances of Oregon in a business point of view are mainly concentrated at Portland, whose banks have available resources of nearly $20,000,000. A clearing-house was established here in 1889, and shows a business of $100,000,000 a year, although but ten out of the 16 city banks belong to or settle their daily balances through it.

The First National Bank of Portland was established in July, 1865, and is the oldest National bank west of the Rocky Mountains. The capital was originally $100,000. In 1869 the controlling interest was acquired by Henry Failing and H. W. Corbett, who have continued in the control and management. In 1870 the capital was increased to $250,000, and again in 1888 to $500,000. The management has been of a conservative and enlightened character; and the bank now stands preëminently at the head of the financial institutions of the Pacific Northwest. Besides the capital of $500,000, it has a surplus and undivided profits exceeding $800,000; and the deposits amount to nearly $4,000,000. It is a United-States depositary, and has a collection business extending throughout the Union. In the building up of "the Boston of the Pacific Coast," and sustaining it triumphantly through the financial storms which have swept over the Northwest, the First National Bank has exerted a powerful and beneficent influence.

PORTLAND: LADD & TILTON'S BANK.

Another strong and influential bank is Ladd & Tilton, of Portland, whose connections extend all over the Northwest, and whose correspondents are in every State, and include direct interests in several of the interior banks of Oregon and Washington. Their capital is $250,000, with a surplus and undivided profits of nearly double that amount, and a personal responsibility of several millions. Among the great financial houses of

the purse-bearing Pacific Coast, Ladd & Tilton are reputed to occupy the highest place of all the private bankers, skilfully employing their portion of the available capital in the development of trade and commerce. At Seattle, too, Ladd & Tilton have gained a foremost position, as they are practically the owners and officers of Dexter Horton & Co.'s bank. These two financial institutions are among the oldest on the Northwest Pacific Coast.

PORTLAND: PORTLAND INDUSTRIAL EXPOSITION BUILDING.

Chief Cities.—Portland is a prosperous shipping port and railway centre, the metropolis of the Willamette Valley, "the Eden of Oregon." In a single year 5,000,000 bushels of wheat and 500,000 barrels of flour have been exported, and vast quantities of lumber to China, Japan and South America. There are a hundred millionaires in this city. Portland lies on the Willamette, 110 miles from the sea, and its hills rise 1,000 feet, commanding noble views of Mts. Hood and Rainier, St. Helena and Adams. Among its buildings are that of the Portland Industrial Exposition, the largest on the Pacific Coast; a $700,000 opera house, three large hospitals, a Masonic temple, 40 churches, and numerous efficient schools and colleges. The city is the greatest railway centre on the Coast, and is favorably situated at the head of deep-sea navigation on

PORTLAND, AND THE WILLAMETTE RIVER.

the Columbia and Willamette. It is the metropolis of the entire Columbia Valley, and second in size to San Francisco on the Pacific Coast. Its population is 69,000, by the census of 1890, of whom but 47,000 live within its very contracted official limits. It has 14 banks, with a capital of $9,000,000 and weekly clearances of $1,800,000. It manufactures $28,000,000 worth of goods, and did a wholesale business of $132,000,000 in 1890. Its real-estate transactions are $24,000,000 yearly, and its building improvements $5,000,000. Its exports reach $12,000,000 a year, and its money-order business at the post-office $3,000,000. It has extensive systems of cable-road and electric-motor lines, and is lighted by electricity generated at the Willamette Falls, 12 miles distant. This beautiful queen city of the far Northwest is the terminal point of the Southern Pacific line from San Francisco, the Union Pacific routes by the Oregon Short Line and the Oregon Railway & Navigation Co., the Northern Pacific routes via Tacoma, and the new system of the Great Northern Railway, now threading its way over the Rocky Mountains from far-away Minnesota. It has also steamship lines to Japan, to Alaska, to British Columbia, and to San Francisco, besides several lines of steamers employed in the Coast trade; and sailing-vessels load here for China, South America, New York, and the United Kingdom. By reason of her favorable position at the head of deep-sea navigation, and the

OREGON CITY: WILLAMETTE FALLS.

SANTIAM RIVER: ON THE CASCADE-MOUNTAIN AND WILLAMETTE-VALLEY WAGON-ROAD.

wonderful resources of the country of which Portland is the metropolis, her influence and importance must continue to increase. One of the chief agents in the recent development of Portland's interests is the Oregon Emigration Board.

Vast quantities of Oregon and Washington white wheat are handled at Portland, by the Pacific-Coast Elevator, of which F. H. Peavey is President. This structure has a capacity of 1,000,000 bushels, and the 40 country houses belonging to the company hold 1,300,000 bushels.

Astoria's busy wharves front on the broad Columbia estuary for a league, and preserve the memories of the old fur-trading days, while sheltering a considerable commerce. The business district is built on piles, like Amsterdam; the residence quarter rises along higher terraces of the heights behind; and the great forest sweeps around all its landward environs. The most important towns in Eastern Oregon are Baker City, Pendleton and the Dalles; the most important in Southern Oregon are Ashland, Jacksonville and Medford, in the Rogue-River Valley, and Roseburg, in the Umpqua Valley.

Oregon is now receiving very large accessions to her population. Capital is flowing into the State, developing her great natural resources, and destiny points to her as one of the great States of the American Union.

The Railway system includes the Oregon Railway & Navigation Line (Union Pacific) from Portland east to Huntington (404 miles), connecting there for Idaho and Wyoming; the Oregon and California line (Southern Pacific) from Portland southward into the Golden State; and the Northern Pacific line, crossing the Columbia River by ferry at Kalama, and running down to Portland. Also three distinct lines of the Southern Pacific, besides the Union line, running up the entire length of the Willamette Valley. The Union Pacific system ramifies throughout the entire Upper-Columbia and Snake-River region, reaching Spokane Falls and the Cœur-d'Alène mines in Idaho.

PORTLAND: UNION PASSENGER DEPOT.

One of the wonders of the Pacific Coast is the new Hotel Portland, opened April 7, 1890, at the metropolis of Oregon. This beautiful specimen of French-chateau architecture is built in the shape of the letter H, with north and south wings 50 by 200 feet in area, and a central wing of 50 by 100 feet, each being eight stories high, and built of gray basaltic rock and brick. This immense and luxurious home for travelers, with its elegant furnishing and equipment, cost three quarters of a million dollars, and contains every possible device for comfort and content. Its 350 rooms are heated by steam and lighted by electricity, and provided with the most ingenious protection against fire. Amid the Wilton carpets and rose-silk-plush upholstery, the carved oak buffets and silverplate, the shining mirrors and mahogany furniture of this modern hostelry, one must realize that the old Northwest, with its perils and hardships, has passed away forever. The manager of the Portland is Charles E. Leland, for many years proprietor of the Delavan, at Albany, the Clarendon, at Saratoga, and the Rossmore, at New York, —one of the Leland family whose name is indelibly associated with the hostelries of this generation.

PORTLAND: THE PORTLAND.

HISTORY.

The claim of the Dutch to the soil of Pennsylvania rested on the discovery of Delaware Bay by Henry Hudson, in 1609. Seven years later, Cornelis Hendricksen explored the Delaware River as far as the Schuylkill; and ephemeral colonies soon arose along the lower shores. Swedish ships entered the Delaware in 1638, and their people founded the first towns in Pennsylvania. The Puritan immigrants from Connecticut, settling on the Schuylkill in 1641, were ousted and sent home by the Swedes and Dutch. The first permanent European settlement was made at Tinicum, near Chester, where Lieut.-Col. Printz, of the Swedish cavalry, and the learned Pastor Campanius founded New Gottenburg "the metropolis of New Sweden." In his handsome mansion of Printz Hall, Gov. Printz's daughter Armegard was married the next year (the first wedding in Pennsylvania). The growth of New Sweden, and its purchases of land from the Indians, alarmed the Dutch of New Netherland, and in 1655 a fleet of seven vessels, led by Stuyvesant, swooped down on the little Scandinavian fortresses, and made captives of all the Swedes and Finns. A few years later, a similar operation was conducted by Sir Robert Carr's fleet, and the Dutch colonies on the Delaware surrendered to the power of England.

When the brave Admiral Sir William Penn died, the British Government owed him £16,000. In 1680, his son, William Penn, petitioned King Charles II. to discharge this debt by granting him a tract of land in America, north of Maryland and west of the Delaware River; and so, the next year, Penn was made absolute proprietary of the new province. In 1682 he came to his principality, and entered into friendly relations with the chiefs of the Delawares, Mingoes and Shawnees, and before their council-fire established the fraternal relations which preserved an unbroken peace in the Province for more than 50

STATISTICS.

Settled at	Tinicum.
Settled in	1643
Founded by	Swedes.
One of the Original 13 States.	
Population in 1860,	2,906,215
In 1870,	3,521,951
In 1880,	4,282,891
White,	4,197,016
Colored,	85,875
American-born,	3,695,062
Foreign-born,	587,829
Males,	2,136,655
Females,	2,146,236
In 1890 (U. S. Census),	5,258,014
Population to the square mile,	95.2
Voting Population,	1,094,284
Vote for Harrison (1888),	526,091
Vote for Cleveland (1888),	446,633
Net State Debt,	$1,788,026
Assessed Valuation of Property (1890),	$2,593,000,000
Area (square miles),	45,215
U. S. Representatives (in 1893),	30
Militia (Disciplined),	8,335
Counties,	67
Post-offices	4,728
Railroads (miles),	8,453
Vessels,	1,029
Tonnage,	273,203
Manufactures (yearly),	$701,748,045
Operatives,	387,112
Yearly Wages,	$134,055,304
Farm Land (in acres),	20,060,455
Farm-Land Values,	$975,689,410
Farm Products (yearly)	$129,760,476
Public Schools, Average Daily Attendance,	687,355
Newspapers,	1,357
Latitude,	39°43′ to 42°15′ N.
Longitude,	74°42′ to 80°34′ W.
Temperature,	—16° to 103°
Mean Temperature (Harrisburg),	54°

TEN CHIEF CITIES AND THEIR POPULATIONS (CENSUS OF 1890).

Philadelphia,	1,046,964
Pittsburgh,	238,617
Allegheny City,	105,287
Scranton,	75,215
Reading,	58,661
Erie,	40,634
Harrisburg,	39,385
Wilkes-Barre,	37,718
Lancaster,	32,011
Altoona,	30,337

years. The State's domain was secured from the Indians by six great purchases, beginning in 1682 and ending in 1784. During the 40 years after 1683 more than 50,000 German and Swiss settlers migrated to Pennsylvania, giving it almost the character of a Teutonic province. After the death of the wise Quaker founder, in 1718, the government lay in the hands of his kinsmen, John, Richard and Thomas Penn and their heirs until 1776. The first serious danger from without came from the French, who in 1753-4 erected a line of forts along the Allegheny and Ohio Rivers. In 1755 Gen. Braddock advanced from Alexandria, Virginia, against Fort Duquesne (now Pittsburgh), with Halkett's and Dunbar's regiments of regulars and 1,200 Virginians. After marching across the pathless Alleghenies, and when approaching the fort, the expeditionary force was ambuscaded by 600 Frenchmen and Indians, and after three hours of carnage, in which Braddock and 62 officers and 714 soldiers were slain, the remnant of the British army gave way. After this victory, the French and Indians advanced across the Susquehanna, and into Lancaster and Berks Counties; and the alarmed Pennsylvanians erected and garrisoned a chain of forts along the Kittatinny Hills, from the Delaware to the Maryland border. The Assembly pursued a Quaker policy of non-resistance; but in 1756 Col. Armstrong destroyed Kittanning, on the Alleghenies, and Gov. Denny raised 25 companies of volunteers and garrisoned the frontier. In 1758 Gen. Forbes and 9,000 troops marched against Fort Duquesne, which was blown up and abandoned by the French. Thenceforward for many decades the western slopes of the Alleghenies witnessed the slow and heroic advance of the Scotch-Irish people and other frontiersmen, pressing back the Indian tribes farther and farther into the unknown wilderness, and receiving and inflicting terrible blows. Col. Bouquet's expedition and victory at Bushy Run, in 1763, and other martial events at last cleared the frontier. Mason and Dixon's line was run and marked in 1767, by two English surveyors, to settle long-standing border-disputes between Pennsylvania and Maryland, and consisted of a cutting through the forest eight yards wide and 245 miles long, with each of the first 132 miles ending at an erected stone, each fifth stone bearing the carved arms of Lord Baltimore and the Penn family. These learned mathematicians would have gone farther west, but the Indians sought for their scalps, and they returned to London.

PHILADELPHIA: PENN TREATY MONUMENT.

PHILADELPHIA: BENJAMIN FRANKLIN'S GRAVE.

The original elements of the population included the Swedes and Dutch of the first migrations, the English and Welsh Quakers who came with Penn, the Germans, the New-Englanders who colonized the Valley of Wyoming, and the Scotch-Irish settling along the perilous frontiers. The great streams of humanity that flowed into Pennsylvania in the early days still remain more distinct than the white races of any other State so long settled. The simple manners and plain speech of the English Friends, the positive and energetic traits of the Scotch-Irish Presbyterians, and the thrift and industry of the Germans still appear in evidence in the regions they originally settled. The Valley of Wyoming was occupied in 1762 by immigrants from Connecticut, whose Royal Charter covered northern Pennsylvania. The valiant Iroquois Indians fell upon these pioneers, and slew thirty of them, whereupon the survivors fled.

But the New-Englanders finally prevailed, and the great valley, dotted with Congregational hamlets, became a part of Litchfield County, with representatives in the Connecticut Legislature. During the Revolution, 400 Tory Rangers and Royal Greens and 700 Seneca Indians defeated and massacred Col. Zebulon Butler's 400 valley militia; and

GERMANTOWN: OLDEST MILL IN PENNSYLVANIA.

PHILADELPHIA: CARPENTERS' HALL.

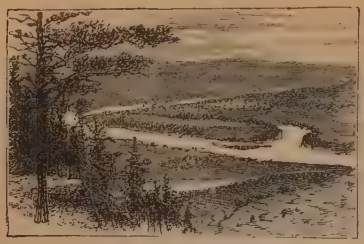
the region was swept with the fire and steel of destruction for years. After the war, the Connecticut settlements were rebuilt, and again and again sacked and depopulated by the Pennamite troops, until 1799, when the seventeen valley townships were allotted to the New-Englanders, whose descendants now hold them, as a part of Pennsylvania.

Fayette, Greene and Washington Counties, in southwestern Pennsylvania, were claimed as a part of Virginia, included in the District of West Augusta. Gov. Dunmore opened Virginian courts at Pittsburgh (then re-named Fort Dunmore), in 1774; and the region was divided into the counties of Yohogania, Monongalia and Ohio. Virginian land-officers gave titles at ten shillings the hundred acres, and Washington acquired property here. Finally, however, Gov. John Penn swooped down on the Southern officials, and put their chief men in prison.

Pennsylvania took up arms promptly in the cause of American independence, and the flower of her frontiersmen marched to Boston, in July, 1775, and joined the New-Englanders in rescuing their metropolis from the British garrison. This celebrated Rifle Regiment was the first command from beyond the Hudson to reach the American camps near Boston. After the fall of New York the scene of war was transferred to the peaceful plains of the Keystone State. In 1777 Gen. Howe's British and German army passed by sea to the head of Chesapeake Bay, and defeated Washington on the Brandywine, after an all-day's battle, in which England lost 600 men, and America twice as many. Then the invading host occupied Philadelphia, whence Congress had fled to Lancaster. The State navy consisted of 27 gunboats, fire-rafts, floating batteries and guard-boats. After Philadelphia fell into hostile hands, this fleet bravely fought the British squadron ascending the Delaware, and destroyed the *Augusta*, 74, and the *Merlin*, 44. When Fort Mifflin surrendered, the larger part of the State fleet crept up by Philadelphia in the shadow of night, to Burlington. Hence their sailors sent swarms of infernal machines floating down stream, against the British war-vessels, whose roaring broadsides, directed against them, gave rise to the poem of "The Battle of the Kegs." A marble monument was erected in 1817 over the grave of Wayne's Continentals, slain in the midnight massacre at Paoli; and Germantown has many memorials of its terrible battle in the October fogs, when Washington hurled his brave little army against the British defenses, and lost 1,200 men in vain. All that long winter Washington lay in miserable cantonments at Valley Forge, watching the comfortable and luxurious Britons in Philadelphia. Early in the summer, the Royal army evacuated the city, and retreated across New Jersey to New York, followed by Washington. The troops of the Pennsylvania Line revolted in 1781, and marched to Princeton, where they compelled Congress to remedy their undoubted grievances. In 1783 they boldly menaced Congress again, in Philadelphia, and constrained that body to adjourn to Princeton. The Whiskey Insurrection of 1794 arose from the determination of Con-

PHILADELPHIA: THE INDEPENDENCE BELL.

PHILADELPHIA: INDEPENDENCE HALL.

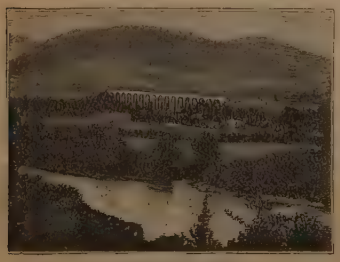


THE VALLEY OF WYOMING.

gress to impose a tax on stills and distilled liquors, which were among the most highly prized possessions of the Scotch-Irish mountaineers of the Alleghenies. The four western counties of Pennsylvania flew to arms, and United-States officials suffered gross indignities, houses were burned, and people were driven from the country by "Tom Tinker's men." President Washington called out 13,000 Pennsylvania, New-Jersey, Maryland and Virginia troops, under Gov. Henry Lee of Virginia, and journeyed by Carlisle and Chambersburg to Cumberland and Bedford, the army advancing to Uniontown. The insurgents gave way instantly before the Federal authority, and then for the first time it was seen that the United States was a Nation, and not a rope of sand, to be broken whenever any section disliked a law. In 1795-6 Carlisle, Reading and Lancaster contended for the seat of the State government, which passed from Philadelphia to Lancaster in 1799, and to Harrisburg in 1812. In 1804 stages began to run from Philadelphia to Pittsburgh, in seven days, by Lancaster, Harrisburg, Carlisle, Bedford, Somerset and Greensburg. In the war of 1812, Pennsylvania had a larger force engaged than any other State, at the defence of Baltimore and in the invasion of Canada and on Perry's victorious fleet, although her own soil remained inviolate from hostile arms.

JUNIATA RIVER.

For many years after the peace of 1783 there was nothing but a horse-path over the Alleghenies, and salt, iron, powder, lead and other necessities came from the coast on pack-horses. The farmers of fertile Western Pennsylvania, thus shut out from a market, turned their faces down the long river-valleys, where the Spaniards held sway. Building unwieldy arks of plank, and loading them with produce, they floated down the Ohio and Mississippi, exposed to the Indian rifles, until they reached New Orleans, where the products of the Pennsylvanian hills were changed into coin. Sometimes these bold Argonauts took ship to New York, and returned home over the Alleghenies; but usually they walked home, through the Louisiana and Mississippi cane-brakes, and across the silent mountains of Tennessee and Virginia. The National Road was built in 1806-17, by the United States, in discharge of an agreement with Ohio to unite her domain with the navigable waters of the Atlantic. The eastern division of the road ran from Cumberland to Redstone Old Fort (now Brownsville, Penn.), where the weary emigrants could get on flat-boats and float down to the Ohio. The western division ran from Redstone Old Fort to Wheeling (W. Va.). The road was 66 feet wide, paved for 20 feet with broken rock, on a pavement of close-set stones. In 1832-35 the Government put this great highway in complete repair, and surrendered it to the States whose territory it traversed.

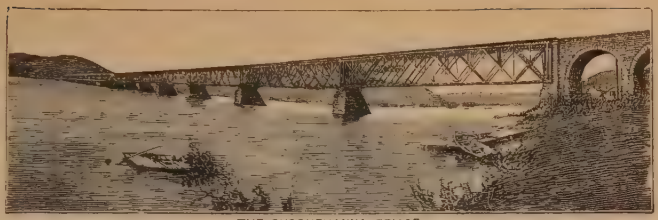


STARUCCA VIADUCT.

Although contiguous to one of the most conservative Slave States, Pennsylvania was always strongly opposed to human servitude, and its Quaker population took strong ground against the Southern institution.

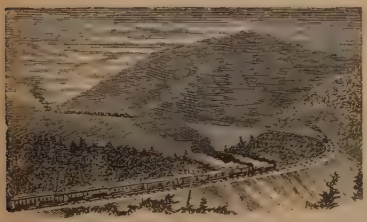
The first Northern troops to arrive at Washington when the confederates threatened that city were 530

Pennsylvania volunteers. Fourteen regiments were summoned from this State, and 25 responded; and out of the surplus Gov. Curtin organized the famous Pennsylvania Reserves.



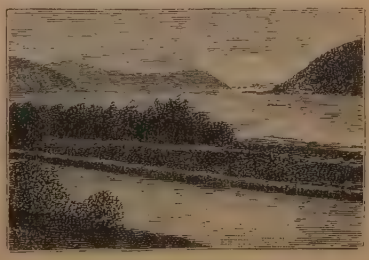
THE SUSQUEHANNA BRIDGE.

The records of the Pennsylvania regiments are preserved in five imperial octavo volumes of 1,000 pages each, issued by the State. Her contribution to the National armies numbered 362,284 men, besides 25,000 militia in 1862. Again and again her lower counties were invaded by daring Southern raiders. Chambersburg was captured by 2,000 Confederate cavalry, October 10, 1862, and vast Government stores destroyed. In June, 1863, Jenkins and 1,800 Southern riders pillaged the town, and were followed by Lee's great army. Thirteen months later, Gen. McCausland captured the town and burnt it to the ground, inflicting a loss of $3,000,000. June 16, 1863, Ewell's Confederate corps occupied Carlisle and burned the bridge and barracks, shelling the town through a long summer afternoon. After the defeat of the National army at Chancellorsville, Gen. Lee invaded Pennsylvania with a powerful army of Southern veterans, and over-ran the Cumberland and lower Susquehanna Valleys. The Army of the Potomac kept to the eastward, to cover Washington, Baltimore and Philadelphia. The two hosts came into conflict around Gettysburg, and made immortal the name of the peaceful little Pennsylvania village. The battle lasted through July 1, 2, and 3, 1863. The Confederates had 73,000 engaged; the Federal forces numbered 82,000. In the first day's battle the First (Reynolds's) and Eleventh (Howard's) Federal Corps were defeated and driven through Gettysburg, the First being almost annihilated. The second day passed in bitter fighting around Little Round Top (defended by Sickles's Third Corps against the flower of the Southern army), and in Ewell's unavailing assaults on Cemetery Hill. A little after noon on the third day, Lee opened against the National center a tremendous cannonade from 115 guns, which shook the valley for two hours, at the end of which, Pickett and his magnificent division of Virginians swept across the plain and up the heights, and broke through the Federal lines. But their losses during the charge had been appalling; the supporting brigades gave way; and the Federal batteries and brigades hurried forward from right and left, and enwalled Pickett with fire. Most of his heroes were made prisoners, or slain on the field. The next day, Lee retreated with his broken army through the mountains. Gen. Doubleday, the historian of the battle, endorses the Count de Paris's estimates of the losses in the Gettysburg campaign: Federal, 2,834 killed, 13,709 wounded, and 6,643 missing (total, 23,186); Confederate, 2,665 killed, 12,599 wounded, and 7,464 missing (total, 22,728).



ALLEGHENY MOUNTAINS: THE HORSE-SHOE CURVE.

The Soldiers' National Cemetery covers 17 acres of the Federal lines in the great battle, with the graves of 3,575 soldiers. Eighteen States are

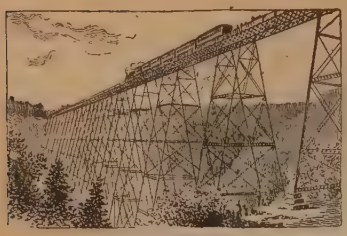


THE SUSQUEHANNA RIVER.

represented: New York with 867 graves, Pennsylvania with 555, Michigan with 175, and Massachusetts with 158, being the chief. The States bore the cost of thus caring for their dead children; and in 1872 the Nation took charge of the cemetery. Near the semi-circle of graves rises the National monument, of gray Westerly granite, crowned by a colossal marble statue of the Genius of Liberty, and surrounded by marble statues of War, History, Peace and Plenty. Here, also, stands J. Q. A. Ward's bronze statue of Gen. John F. Reynolds, one of the slain in the first day's fight. The cemetery was dedicated a year or so after the battle, and on this field President Lincoln delivered his immortal address: "Fellow Citizens: Fourscore and seven years ago our fathers brought forth upon this continent a new nation, conceived in Liberty, and dedicated to the proposition that all men are created equal. Now we are engaged in a great civil war, testing whether that nation, or any nation so conceived and so dedicated, can long endure. We are met on a great battlefield of that war. We are met to dedicate a portion of it as a final resting-place of those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this. But in a larger sense we cannot dedicate, we cannot consecrate, we cannot hallow this ground. The brave men, living and dead, who struggled here, have consecrated it far above our power to add or detract. The world will little note, nor long remember what we say here, but it can never forget what they did here. It is for us, the living, rather to be dedicated here to the unfinished work that they have thus so far nobly carried on. It is rather for us to be here dedicated to the great task remaining before us—that from these honored dead we take increased devotion to the cause for which they here gave the last full measure of devotion—that we here highly resolve that the dead shall not have died in vain; that the nation, under God, shall have a new birth of freedom; and that the government of the people, by the people, and for the people, shall not perish from the earth."

Since the dawn of peace, Pennsylvania has pursued the even tenor of her way, developing her famous mines and manufactures, under the fostering care of National tariffs. This noble and historic State abounds in memorials of its ancient days, like the famous old taverns of Chester, the White Horse, Red Lion, Unicorn, Hammer and Trowel, Compass, Turk's Head, The Bull, and others; the century-old houses of Chester, still scarred with the British bombardment; the headquarters of Washington and Lafayette, on the Brandywine (Andrew Braindwine's Creek, of the ancient records); the home of Washington during the weary winter of 1777 8, at Valley Forge; the Chew mansion, whose solid stone walls enabled the British troops to check the victorious Americans, at Germantown; venerable churches like St. David's at Radnor (built in 1715), the Old Swedes and Christ Church, in Philadelphia, and the gray old shrines of Bristol; the colonial houses of Bedford and the valley towns; and scores of historic mansions about Philadelphia. Independence Hall was built at Philadelphia in 1732 35, as the seat of the Provincial Government, and is sacredly preserved. Within its venerable walls the Second Continental Congress convened, in 1776, and adopted the Declaration of Independence, which was read to the assembled citizens in the State-House yard. The hall contains portraits of the signers of the Declaration, and many interesting historical relics. The First Continental Congress met in 1774, in Carpenters' Hall, which is still preserved, at Philadelphia, with its memories of Patrick Henry, John Hancock and Sam. Adams. Overlooking Lake Erie, near the city of Erie, stands a quaint memorial blockhouse, armed with four cannon, erected by the State in honor of its Revolutionary hero, Anthony Wayne. Gen. Grant's headquarters during the siege of Richmond has been brought from City Point and set up in Fairmount Park, Philadelphia. William Penn's house, longtime the home of the founder of Pennsylvania, has also been removed to the Park. Scores of monuments in all parts of the State, at Allegheny City, Lancaster, Carlisle, Erie, Norristown and elsewhere, commemorate the valor of its volunteers in the great civil war. Other monumental shafts at Harrisburg and Paoli, and in the Valley of Wyoming and other places preserve the memories of earlier conflicts and other heroes.

GETTYSBURG BATTLEFIELD AND MONUMENTS.



KINZUA VIADUCT.

The Name, Pennsylvania, means the Sylvan Places (or Woodlands) of Penn, and was given by King Charles II. of England. The Penn so commemorated was not the William Penn who founded the Commonwealth, but his father, Admiral Penn, whom the King greatly esteemed. William Penn wished to have the country named *New Wales*, but the Secretary, a Welshman himself, refused to allow it; and then Penn suggested *Sylvania* as an appropriate name, and the King prefixed it with *Penn*. The name of THE KEYSTONE STATE arises from the fact that Pennsylvania is the seventh in geographical order of the 13 original States. As such, her name was cut on the keystone of the bridge between Washington and Georgetown. Another reason is that the final vote of her delegation secured the adoption of the Declaration of Independence in the Continental Congress, thus crowning Pennsylvania as the Keystone of the arch of Liberty.

The Arms of Pennsylvania were devised in 1779, and display a ship in full sail, a plough, and stalks of maize, with a crest showing a bald eagle, proper, perched, with wings extended. The supporters are two black horses, harnessed for draught, and rampant. The motto is: VIRTUE, LIBERTY, AND INDEPENDENCE.

PHILADELPHIA:
GIRARD-AVENUE AND PENNSYLVANIA-RAILROAD BRIDGES.

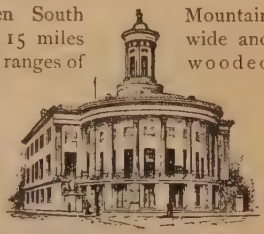
The Governors of Pennsylvania for the first 57 years were 24 Dutch, Swedish and English gentlemen, followed from 1681 to 1776 by the Provincial Government of the Penns and their deputies. During the Revolution, and later, the State was ruled successively by Wharton, Bryan, Reed, Moore, Dickinson, Franklin and Mifflin, Presidents of the Council. Then came the State Governors: Thomas Mifflin, 1790–9; Thomas McKean, 1799–1808; Simon Snyder, 1808–17; William Findlay, 1817–20; Joseph Hiester, 1820–3; John Andrew Shulze, 1823–9; George Wolf, 1829–35; Joseph Ritner, 1835–9; David Rittenhouse Porter, 1839–45; Francis Rawn Shunk, 1845–8; Wm. Freame Johnston, 1848–52; Wm. Bigler, 1852–5; James Pollock, 1855–8; Wm. Fisher Packer, 1858–61; Andrew Gregg Curtin, 1861–7; John White Geary, 1867–73; John Frederick Hartranft, 1873–9; Henry Martyn Hoyt, 1879–83; Robert Emory Pattison, 1883–7; James A. Beaver, 1887–91; and R. E. Pattison, 1891–5.

WISSAHICKON CREEK: LOVERS' LEAP.

Descriptive.—Pennsylvania is the only one of the 13 original States without any sea-coast. It extends 302 miles from Ohio and the Pan Handle of West Virginia to the borders of New Jersey; and has a width of 175 miles, from the hills of New York southward to Mason and Dixon's Line, which separates it from Maryland and West Virginia. In a large way, this great domain may be divided into three sections, the southeastern plains, the middle hills and valleys, and the western highlands. A million and a half of people dwell in the eight southeastern counties, one of the loveliest regions in America, pleasantly diversified with country-seats, park-like scenery, tranquil villages, and thousands of fruitful farms. The inhabitants are largely of German, Huguenot and Quaker descent. This garden-like country, with the red sandy clays of Bucks, Montgomery and Lebanon Counties, and the gray micaceous soil of Delaware, Chester and York

Counties, merges into the beautiful Lancaster plains, which belong to the Great Valley, or Cumberland Valley. Here and there, the long levels of the farm-lands are broken by picturesque isolated ridges, like the Welsh, Conewago and Forrest Hills.

A million people occupy the middle district, between South Mountain and the Alleghenies, including as its chief feature a valley 15 miles wide and 150 miles long, bending from east to south, and enwalled by ranges of wooded mountains from 1,000 to 1,600 feet high, continuous with the Green Mountains of Vermont and the Smoky Mountains of North Carolina. In all the thousand miles of its course from Canada to the lowlands of the Gulf, there is no richer domain than Lancaster County, a great limestone plain extending from beyond the Susquehanna nearly to Philadelphia, and occupied everywhere by the well-kept farms and huge stone barns of the "Pennsylvania Dutch." The language of this people is a legitimate South German (or Upper Rhineland) dialect, which has taken up many English words, and possesses a considerable body of literature.



PHILADELPHIA: OLD STOCK EXCHANGE.

Middle or Appalachian Pennsylvania is about 50 miles wide and 230 miles long, with the Kittatinny Mountain on one side and the steep rocky wall of the Alleghenies on the other, cut by the narrow gorges of several rivers, and bearing various local names. The Catskill or Pocono plateau is a spacious wilderness, with laurel-fringed lakes and the haunts of many deer and bears. Southwest of this unpeopled land lie the labyrinthine mountains of the anthracite region, Broad and Beaver Meadow and Nescopec, with the lovely Wyoming, Mahanoy and Catawissa Valleys, rosy with rhododendrons, and enwalled by dark wooded ridges. The Valley of Wyoming is a rich alluvial plain, 20 miles long by three miles wide, enclosed by an ellipse of mountains, and entered on the north through Lackawannock Gap, and on the south through Nanticoke Gap. Next comes the exquisite Susquehanna Valley, a hundred miles long, now opening out for a score of miles, and again narrowed to half that width by cultivated and rounded slaty hills. Elsewhere in the highlands of Middle Pennsylvania occurs a succession of singular level valleys of limestone, surrounded by rocky mountains, and populated by thousands of well-to-do farmers. The unusual fertility of these glens brings forth wheat, corn and rye in great quantities, and their smiling fields are interspersed with dark-hued orchards and groves, and underlaid with labyrinthine caverns. Prof. Lesley says of this region: "Nowhere else on earth is its counterpart for the richness and definiteness of geographical detail. It is the very home of the picturesque in science as in scenery. Its landscapes on the Susquehanna, on the Juniata, and Potomac are unrivalled of their kind in the world." The entire Appalachian country is famous for these long valleys, which lie between its rampart ridges, like the Tuscarora Valley, stretching narrowly along for 50 miles, with wooded highlands overhanging it on either side; the famous Kishacoquillas Valley, four miles wide, running 50 miles northward, between Jack's Mountain and the Blue Ridge, to the lonely Seven Mountains, beyond Milroy, inhabited by German Awmish and Scotch-Irish Presbyterians; the Juniata and Great Aughwick Valley, a hundred miles long, from Middleburg to Mary-

PHILADELPHIA: FAIRMOUNT WATER-WORKS.

PHILADELPHIA: FIRST REGIMENT ARMORY.

land, between Shade Mountain and Jack's Mountain; Stone Valley, enshrining in its cool depths Warrior's Ridge and the picturesque Raystown Juniata; and the Bald-Eagle Valley, 160 miles long, from Muncy to Maryland, varying in width from four to ten miles, and with the unbroken Allegheny ridge overlooking its many silvery streams. Path Valley lies east of the Tuscarora Mountains for 22 miles, and Amberson's Valley opens into it. McConnell's Cove, Friends' Cove, and many other picturesque glens are hidden among the great wooded ridges of the Alleghenies. The long Cumberland Valley, running south between Blue Mountain and South Mountain, is famous for its rich and tranquil beauty. The region of "the blue Juniata" is full of beauty and diversity, with its Long Narrows, between Shade Mountain and the Blue Ridge; and has several paradise-like tributary glens. Beyond the Sinking-Spring Valley, Canoe Valley runs south into Morrison's Cove, settled in 1755 by German Dunkards, non-resistants from principle. When the Indians burst into the valley, 20 years later, these gentle fatalists bowed their heads to the tomahawks, saying, "God's will be done," and so died. Nippenose Valley is a deep oval limestone basin, ten miles long, rich in farms, with the neighboring Muncy, West-Branch and White-Deer-Hole Valleys, opening into the wooded highlands. The Nittany Valley extends for 110 miles, with Bald-Eagle Mountain as its strong eastern wall, a fertile trough in the wilderness of hills, with the tributary glens of Brush Valley and Penn Valley, among the Seven Mountains, and Sinking-Spring Valley, whose hidden streams appear through the broken cavern-roofs, and Morrison's Cove, along the Little Juniata. The excisions of unknown thousands of years have carved this vast Allegheny plateau into many strange forms, like whales' backs, overturned ships, sharp sandstone peaks and cliffs, and long and regular terraces. It is a picturesque country, bearing a likeness to the Swiss Juras, with long parallel ridges, curving together at the ends of trough-like valleys, or ending abruptly in the midst of the narrow plains.

HARRISBURG: EXECUTIVE MANSION.

PHILADELPHIA: CUSTOM HOUSE.

The northern and western counties, on the broad uplands of the Alleghenies, sloping mainly toward the Great Lakes and the Mississippi, are occupied by 1,500,000 people. The world-renowned oil-regions are here, and the deposits of bituminous coal, and many of the great iron and glass works. The long walls of Negro Mountain, Laurel Hill, and the continuous Laurel and Chestnut Ridges rise west of the Alleghenies, 2,500 feet high, and running southwest into Maryland and Virginia. Half of the State lies in this area, which extends 156 miles from north to south, with a breadth of 175 miles on the New-York line, and 80 miles on the West-Virginia line. The wild Ligonier Valley runs down for 70 miles between the parallel walls of Laurel Hill and Chestnut Ridge, which are everywhere ten miles apart. In this section are the Glades of Somerset, settled by German Awmish and Dunkards; and the striking scenery of the Conemaugh and Turkey-Foot hills; and the Ohio-Pile Falls, on the Youghiogheny River. There are no highlands west of Chestnut Ridge until the Rocky Mountains are reached.

MAUCH CHUNK AND MOUNT PISGAH.

The Delaware River forms the eastern boundary of Pennsylvania, flowing 320 miles from its source in the Catskill Mountains, down to Delaware Bay. The Dela-

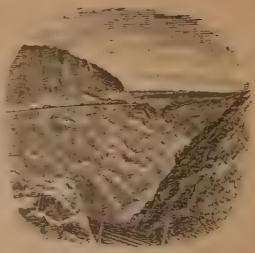
ware Water Gap is the passage cut by the river through the Kittatinny Mountain, whose sharp craggy peaks, Minsi and Tammany, rise 1,600 feet on either side, forming a remarkable gorge, through which the river winds, 60 feet deep. There are great summer-hotels above the gap; and the region is rich in water-falls, springs, cliffs and peaks. Twenty-eight miles southwest opens the Wind Gap, a remarkable pass in the Blue Mountain, and farther away the water-gaps of the Schuylkill, Swatara and Susquehanna cut deep down through the wall-like Kittatinny Mountain, which crosses the State for 180 miles. North of the Delaware Water Gap, the beautiful and historic valley that the Indians called the Minisink extends along the river for 40 miles, by Bushkill, Dingman's Ferry and Milford, to Port Jervis. The tides flow up to Trenton, by the head of ship navigation, at Philadelphia. Steamboats ascend the stream as far as Trenton, 132 miles, and smaller steamers have reached Easton. The Lehigh and Schuylkill, both tributaries of the Delaware, have canal and lock navigation. At the Lehigh Water Gap the river traverses a deep wooded gorge through the Kittatinny Mountain, in a broad, swift flood, leaving barely room for the railway, highway and canal. A little way to the north, the picturesque hamlet of Mauch Chunk clings to the sides of the mountains, up which adventurous railways are laid.

CRESSON SPRINGS, ON THE ALLEGHENY MOUNTAINS.

The Susquehanna River issues from Otsego Lake, and flows across Pennsylvania to the head of Chesapeake Bay, a distance of 400 miles. This noble stream is sometimes called the North Branch, down as far as Northumberland, where it is joined by the West Branch, flowing down 200 miles from the Allegheny Mountains. From this confluence it is 153 miles to the mouth of the river, where it pours, a full mile wide, into the bay at Havre de Grace. The Susquehanna cannot be navigated by steamboats, on account of its shallowness and swiftness, but vast quantities of lumber are rafted down its broad reaches; and along the valley run coal-bearing canals and first-class railways. The Juniata is a tributary, with canals and lock navigation; and flows down from the Alleghenies for 150 miles, amid scenery of enchanting beauty. The Lackawanna River winds downward through the incomparable Valley of Wyoming, and enters the Susquehanna near Pittston. The Allegheny River, 250 miles long, and the Monongahela River, from West Virginia, 250 miles long (with 80 miles in Pennsylvania), are navigable for 60 miles each, partly by slackwater. At their confluence, the great Ohio River begins, giving steamboat communication during eight months of the year with the remotest West and Southwest. The navigable depth of the Ohio is preserved partly by the aid of the Davis-Island Dam, built by the United States in 1878–85, at a cost of $1,000,000, with 300 small movable dams, lying flat on the river-bed when there is plenty of water, and at other times lifted up so as to deepen the channel and raise the up-stream level. Turning from this region to the northwestern angle of the State, we can look out over Lake Erie from a coast-line of 45 miles, indented by the excellent harbor of Erie. This coast is the front of the singular Erie Triangle of 202,000 acres, pushing up into New York. Massachusetts, Connecticut and New York claimed the Triangle, but each of them ceded its rights to the General Government, which sold it in 1788 to Pennsylvania, then desirous of getting a front on the lake. The payment was made in worthless Continental money.

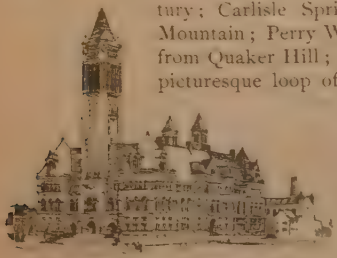
BEDFORD SPRINGS.

PHILADELPHIA: RIDGWAY LIBRARY.



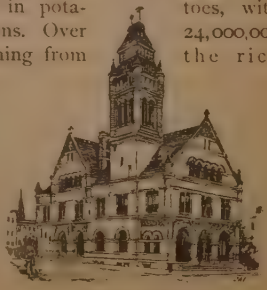
ALLEGRIPPUS CURVE.

Amid the highlands occur many episodes of scenic interest, like Crystal Cave, in Berks County, near Kutztown; the great caverns of Kishacoquillas Valley; Arch Spring and Cave, in Sinking-Spring Valley; the Great Bear Cave, in Chestnut Ridge; the Pack-saddle Narrows of the Conemaugh; the Pulpit Rocks, near Hollidaysburg; and many others. The mountain-lands abound in pleasant summer-resorts, with many comfortable hotels, frequented during the season by thousands of people. The foremost of the highland resorts is Cresson, 2,000 feet above the sea, where the Pennsylvania Railroad crosses the crest of the Allegheny Mountains, amid vast hemlock and beech woods. In the beautiful environs of Philadelphia are several other well-known summer-resorts, like the Wissahickon Inn, among the legend-haunted glens about Chestnut Hill; the great Devon Inn, 600 feet above the sea, and overlooking the rich Chester Valley; the Bryn-Mawr Hotel, in one of the fairest of suburbs; the Bellevue, at Wayne; and Beechwood, near Jenkintown. The State also possesses many well-known mineral springs, serving as fountains of healing for many maladies. Among these are the Katalysine Springs, at Gettysburg, an alkaline water like that of Vichy; York Sulphur Springs, much visited by Baltimoreans in the first half of this century; Carlisle Springs, with sulphur waters, at the base of the Blue Mountain; Perry Warm Springs, with chalybeate waters at 70°, flowing from Quaker Hill; Doubling-Gap Springs (sulphur and chalybeate) in a picturesque loop of the Blue Mountain, near the Cumberland Valley; Mount-Holly Springs (sulphur), near Carlisle and the Great Valley; Fayette Springs (chalybeate), near Laurel Hill; Frankfort Springs, in Beaver County; Bedford Springs (chalybeate), a famous old resort among the Alleghenies, opened in 1806; Minnequa Springs (sulphur), in the Towanda Valley; Litiz Springs, in the Moravian country; Ephrata-Mountain Springs, on the highlands above Ephrata; Wildwood (iron and sulphur), on the Allegheny Mountains, near Cresson; and Kiskiminetas, on the Conemaugh. Only a few of these are now resorted to, the foremost and favorite being Bedford Springs, which has pleasant accommodations, and oftentimes brilliant seasons.



PITTSBURGH: COUNTY COURT-HOUSE.

Agriculture employs 300,000 Pennsylvanians, to 1,200,000 otherwise engaged. There are over 200,000 farms, averaging nearly 100 acres each, valued at $1,200,000,000, and producing yearly above $200,000,000 in crops. Among their great harvests are 42,000,000 bushels of corn, 35,000,000 bushels of oats, and 17,000,000 bushels of wheat, yearly. This is the first State in producing rye, with 5,000,000 bushels a year; the second in buckwheat, with 4,000,000 bushels; the third in potatoes, with 16,000,000 bushels; and the fourth in hay, with 3,000,000 tons. Over 24,000,000 pounds of seed-leaf tobacco are raised here, much of it coming from the rich York and Lancaster plains. This tobacco is from Havana seed, dark and aromatic, elastic and gummy, and much used for cigar-wrappers. Chester is famous for its nurseries. The southeastern counties are rich in fertile loam, much of it based on limestone; and the remoter inland valleys afford the best of farming lands. The mountains have a thin and cold soil, of little value for agriculture. The livestock exceeds 5,000,000 head — 1,800,000 being cattle, 1,800,000 sheep, 1,000,000 swine, and 500,000 horses. The dairy products are of immense value.



READING: POST-OFFICE.

LEWISBURG.

The Climate of Pennsylvania varies widely, from the deep and long-abiding snows and intense cold of the Allegheny winters to the genial equability of the southern counties and the high temperature of the southeast and the Ohio Valley, where the thermometer often marks 100°. The transition sometimes reaches 40° in a day, especially in the central valleys, which are remarkable for their hot summers and frigid winters. A bland and temperate climate characterizes the Lake-Erie country. The rainfall varies from 36 inches in the west to 48 inches in the southeast. During the time when the ice is thawing, or after prolonged rains, the valleys of the great rivers are often visited by grievous disasters, when vast floods pouring from the mountains sweep over the narrow plains. The Delaware, Lehigh, Susquehanna, and Juniata have often wrought great damage in this manner. The mournful catastrophe at Johnstown, in 1889, when the Conemaugh River, swelled by a bursting dam, swept away the city, and destroyed thousands of lives, will never be forgotten.

WILLIAMSPORT: POST-OFFICE.

The ancient forests have nearly vanished before the settler's axe, the charcoal-burners, and the makers of railroad-ties, derricks, and timbers for mines. Great fires from time to time sweep over the forest counties, to be followed by leagues of stunted brushwood. The hemlock woods of Clearfield, Cambria, and Sullivan, "the Shades of Death" on the Lehigh, and the Allegheny white pines have all been of great value in the economic development of the State, and still produce immense quantities of lumber. The lumber product of Clinton County alone has reached nearly 3,000,000,000 feet, valued at over $40,000,000. In these woodlands bears and deer, panthers and wildcats, wolves and foxes, raccoons and otters, may still be found.

PITTSBURGH: POST-OFFICE.

Minerals. — Pennsylvania leads the Union in manufacturing iron, producing as much as all the other States combined. She is richer in ore than most others, and her people have developed this industry with wonderful ability and ingenuity ever since 1688, when William Penn operated a blast-furnace on the Delaware River. The first forge went into operation in 1720, at Coventry, Chester County; and by the time of the Revolution the State had numerous active iron-furnaces, whose products were in great demand just then. The first puddling and rolling mill in America began operations at Plumsock, Fayette County, in 1817. The product of pig-iron in the United States has passed that of Great Britain, and now amounts to 9,580,000 tons a year (1890), as against 3,780,000 tons in 1880. In the year ending June 30, 1890, Pennsylvania made 1,842,193 tons of iron in her anthracite furnaces, 2,847,302 tons in coke and bituminous-coal furnaces, and 17,886 tons of charcoal iron. Among her yearly products are 800,000 tons of Bessemer steel rails, 40,000 tons of iron rails, and 136,000 tons of steel ingots. The Cornwall hills are composed of and underlaid with magnetic iron ore, forming one of the most wonderful

PITTSBURGH: DUQUESNE CLUB

deposits in the world. Nearly 9,000,000 tons of ore have been quarried here since 1740, and thrice that amount remains, besides the incalculable deposits below them. The cold-short and red-short shot and ball and pipe ore, of the finest brown hematite, is found in great open quarry-mines in the central valleys, and transported by rail to the works, in the bituminous coal-region beyond the Alleghenies, and along the Lehigh and Schuylkill Valleys, where also large amounts of imported ores are used.

PHILADELPHIA: SINGERLY BUILDING.

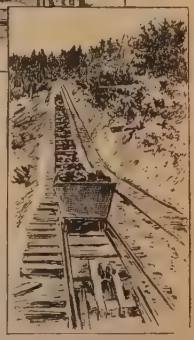
In its vast stores of anthracite coal Pennsylvania has a notable advantage over other States. Over 40,000,000 short tons a year are shipped from the mines, in egg, stove, chestnut, pea and buckwheat sizes, and red-ash and white-ash varieties. There are three groups of parallel valleys in which the crumpled coal-measures appear. The Northern (or Wyoming and Lackawanna) field, with 150 collieries, and an annual output of 24,000,000 tons, is a crescent trough, 50 miles by six in area, with thirty coal-basins. The middle (or Lehigh and Mahanoy) field, with 125 collieries and an output of 14,000,000 tons, includes the Lehigh and Beaver-Meadow plateaus, nearly 2,000 feet high, with steep railroads descending to the Delaware Valley. The Southern coal-field has 40 collieries, with an output of 4,000,000 tons, and occupies the region between the Lehigh and Susquehanna, included between mountain-ranges, and traversed by the Schuylkill and Swatara Rivers. The choice Lykens-Valley coal comes from this region. The supplies of anthracite have hardly been touched, yet, and it is estimated that the known deposits in Pennsylvania will last for centuries, This is the best coal for domestic purposes in the world. Between 1820 and 1877 the Pennsylvania fields shipped 628,000,000 tons of coal, the Wyoming district having held the lead since 1868. The anthracite-coal mines are divided into seven districts: Scranton, producing 8,500,000 tons a year; Pittston, 5,000,000; Wilkes-Barre, 7,500,000; Hazelton, 4,000,000; Shenandoah, 5,400,000; Ashland, 4,700,000; and Pottsville, 2,300,000. The mine-cars are run to the tops of huge buildings called "breakers," 100 feet high and filled with toothed rollers, by which the coal is broken up. The various sizes are separated by bolting screens; boys pick out the slate; and the assorted coal descends by shoots into railway trains. The mining operations are attended with peril, and in a single year 832 men have been killed or maimed.

PHILADELPHIA: MASONIC TEMPLE.

The bituminous coal-fields run in six parallel valleys from New York to Ohio and West Virginia, in the third of the State west of the declivity of the Alleghenies, covering 12,245 square miles with their flat beds, which have been estimated to contain 33,500,000,000 tons. A third of this is in the Pittsburgh bed, where 220 collieries now get out 9,000,000 tons a year, along the Ohio, Monongahela and Youghiogheny Rivers. The State authorities divide the bituminous field into eight districts: Monongahela City, producing 1,500,000 tons yearly; Irwin, 5,400,000; Mercer, 2,100,000; Towanda, 4,200,000; Connellsville, 4,600,000; Johnstown, 3,300,000; Idlewood, 4,000,000; and Phillipsburg, 4,800,000. The Monongahela Valley for 60 miles north of the West-Virginia line abounds in thick veins.

PHILADELPHIA: HORTICULTURAL HALL, AND ACADEMY OF MUSIC.

TIPPLE AND LOADING CHUTE, WEST EUREKA COLLIERY, NO. 2.

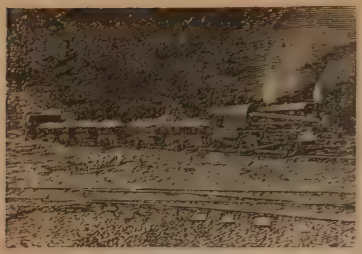


INCLINE FROM MOUTH OF MINE TO LOADING CHUTE. PHILADELPHIA: BERWIND-WHITE COAL-MINING CO.

The Berwind-White Coal-Mining Company was incorporated in 1886, as the successors of Berwind, White & Co., a coal-producing firm organized in 1874, from the still older firms of Berwind & Bradley and White & Lingle. The capital stock is $2,000,000, and its officers are Edward J. Berwind, president; John E. Berwind, vice-president; H. A. Berwind, secretary; and F. McOwen, treasurer. The company owns and operates extensive coal-mines in the Clearfield region, mining what is known in the market as the "celebrated Eureka bituminous coal." They operate 29 collieries; 22 at and around Houtzdale, two at Karthaus, and five at Horatio. The collieries have a capacity of upwards of 12,000 tons per day. The tonnage of the company for 1889 aggregated over 2,500,000 tons. The works of the company are among the best-equipped in the bituminous-coal region, supplied with modern machinery calculated to expedite and economize the production of coal, as well as to insure its reaching the market in first-class condition. The company also own and operate 150 coke-ovens, turning out a very superior grade of coke, which finds a ready market among manufacturers and steel-workers. They own 1,250 coal-cars, and a fleet of 50 coal-barges, used exclusively for the delivery of coal to ocean-steamships in New-York harbor. The coal is a first-class steam-coal. Among its users are the Inman, North German Lloyd, Cunard, Hamburg and French lines, whose ocean greyhounds have a world-wide reputation. It is likewise largely used for rolling-mills, iron-works, forges, glass-works, and lime-kilns, in the burning of brick and fire-brick, and for kindred purposes. The mines are located on the Pennsylvania Railroad, over which they ship to tide-water for shipments coastwise and foreign, and to New York and the New-England States and Canada. Its shipping piers are located at Greenwich Point, Philadelphia; Harsimus, Jersey City, New-York Harbor; and Canton Piers, Baltimore. Its offices are in the Bullitt Building, Philadelphia; 55 Broadway, New York; 19 Congress Street, Boston; and the Rialto Building, Baltimore. The Berwind-White is the largest strictly coal company in America, employing 5,000 men, with a yearly output of $8,000,000.

The gas-coal region consists of a basin 20 miles long and eight wide, at its widest point, starting on the Youghiogheny River and running northeasterly nearly to the Conemaugh River. The Pennsylvania Railroad crosses about its centre, and the Baltimore & Ohio Railroad taps its southwestern side. A large number of detached pieces of coal lie to the westward, between the Monongahela and Allegheny Rivers. Owing to the broken nature of the seam, the mining there is very difficult, while in the main basin the uniformity of the deposit renders the coal much more dependable. Its quality is better on the western side than on the eastern, being freer from sulphur and ash. A small basin lies northeast of the main basin, near Saltsburg, the coal containing a large amount of sulphur and many slate partings. In the south of the main basin the coal is characterized by increase in sulphur, and is more friable than that mined on the western side. An immense body of inferior Pittsburgh coal lies west of the Youghiogheny and Monongahela, and is mined for shipment

MINING COAL. WESTMORELAND COAL COMPANY.



A MINE ENGINE AND TRAIN.
WESTMORELAND COAL CO.

WESTMORELAND COAL COMPANY

by water, to the Ohio and lower Mississippi. The Westmoreland Coal Company, incorporated in 1854, shipped the first gas-coal ever sent from the Pittsburgh region to the Atlantic coast. Hitherto, the gas companies on the seaboard had been supplied from England, but from the moment the Westmoreland coal commenced to compete, such was its superiority in quality, that the use of the imported article diminished and in a few years ceased. The pioneer company has never lost its supremacy, and to-day is far ahead of all American competitors in extent of acreage of coal, in value and perfection of equipment, in its method of mining, and in the character of its output. The introduction in late years of gas-producers, and the general desire of manufacturers to secure a coal of high heating power, coupled with freedom from sulphur and phosphorus, has greatly increased the business of this company. There is scarcely a place in the Eastern United States, Canada or the West Indies where the Westmoreland Coal Company's product is not well and favorably known.

Coke was made in America 73 years ago, and is now a more or less important product of 18 States. The largest amount and the finest quality comes from the famous Connellsville region of Pennsylvania, whose output represents three fourths of the American production. It has built up the enormous pig-iron industry west of the Allegheny Mountains. The use of coke in making pig-iron began in England in 1735, but over a century passed before it awakened any interest among American iron-masters. In 1871 Frick & Co. built 50 ovens, and added 150 more in 1872. Henry C. Frick has been the leading spirit in developing and consolidating the coke manufacture, and providing railways for the transportation of its output, and is to-day the acknowledged head of the coke industry. The H. C. Frick Coke Company was formed in 1882, and has a capital of $5,000,000, owning and controlling 35,000 acres of coal-land, 10,000 ovens, 35 miles of railway (with 2,700 cars and 23 locomotives), 72 pairs of stationary engines, and 172 steam boilers. The company employs 11,000 men. This makes the foremost coke-producing concern in the world. There are three great breakers, where the coke is crushed into a variety of sizes, and shipped away for domestic uses, forging and manufacturing. The 83 mines supply 16,000 bee-hive fire-brick ovens, twelve feet in diameter, and 6½ feet high, in which the coal is burned into a porous and tenacious silvery-lustred coke, with 90 per cent. of carbon. The yearly product is 7,000,000 tons.

CONNELLSVILLE COKE REGIONS:
COKE-MAKING BY THE
H. C. FRICK COKE COMPANY.

PHILADELPHIA: MARY J. DREXEL HOME.

From the earliest times the Seneca Indians applied petroleum externally to heal wounds and sprains on men and animals, and Seneca oil became a favorite medicine with the early white settlers. When whale-oil and vegetable oils grew scarce and high, efforts were made to extract oil from coal and shale, for illuminating purposes. The development of the American petroleum industry dates from the report of Prof. B. Silliman, Jr., of Yale, on the oil sent him from the springs near Titusville. The Seneca Oil Company was organized at New Haven, and in 1857 sent E. L. Drake to drill a well in this region. The success of the enterprise (in 1859) resulted in the development of a colossal new business. There have been over 25,000 producing wells in operation at one time; and for three years on a stretch the average *daily* product has exceeded 75,000 barrels. The yearly consumption has risen from 10,000,000 barrels in 1876 to nearly 30,000,000 barrels, and is still increasing. Three fifths of this is exported. The accumulations of crude petroleum in tanks reached 40,000,000 barrels in 1885, but there is only about half that quantity now. The Bradford oil field has produced 150,000,000 barrels. The Titusville field has yielded about 60,000,000 barrels; and Butler and Clarion Counties, 70,000,000. Petroleum has been sold as low as five cents a barrel, and is the plaything of speculators and monopolies. The oil-districts cover 369 square miles, and the petroleum comes from deep-lying strata of sand and sand-rock. The supply is visibly declining. Latterly the oil-country has been moving southward, with the development of the Washington and Eureka fields, and Pittsburgh for a time was the centre of the business, many of the older oil-towns being entirely deserted. At first, the petroleum was hauled from the wells four miles to Oil Creek, and floated on rafts or flat-boats down to Oil City, where steamboats awaited it. There were a thousand flat-boats and 30 steamers engaged in the business. The wooden tank-cars of 1865, and the 5,000-gallon boiler-iron tank-cars of 1870, were introduced by the railroads. The pipe-lines began in 1865, from Pithole to Miller's farm; and now include the Seaboard, from Olean to Saddle River, N. J., 300 miles; the Pennsylvania, from Colegrove to Philadelphia, 280 miles; the Cleveland, from Hilliards, 100 miles; the Buffalo, from Four Mile, 70 miles; the Baltimore, from Midway, 70 miles; and the famous Tidewater Line, to Bayonne, N. J. These lines consist of wrought-iron pipes, laid two feet underground, and running straight away across the country, up hill and down, through villages and cities, and under rivers (as a branch of the Seaboard line runs under the Hudson and East Rivers and through Central Park to the refineries at Hunter's Point). There are 4,000 miles of pipes in the oil-regions, also. In the valleys along the greater lines are pumping-stations, each with seven men, and powerful pumping-engines working day and night and sending the oil forward in an uninterrupted stream.

PHILADELPHIA: EPISCOPAL HOSPITAL.

At Friedensville are famous zinc-mines, opened in 1853, and producing $400,000 worth yearly, which is manufactured at South Bethlehem into zinc white, sheet zinc and spelter. On the Juniata occur vast beds of hard white silicious sandstone, 20,000 tons of which

HAZELTON: MINERS' HOSPITAL.

are taken out yearly, for glass-making. The quarries at Slatington, near the Lehigh, employ 600 men, and export vast quantities of the finest blue-black slate, of pure clay, for billiard-tables and mantels, blackboards and slates, flooring and roofing. These are the foremost quarries of American slate; and York and Lancaster Counties also have large interests in this industry.

Marble of many varieties, from black to white, is found in the Great Valley, in Chester County, and has been quarried in immense quantities in Montgomery County. The gray marble of Swatara is of marked beauty. Serpentine, or greenstone, largely used in fine buildings, is quarried at Birmingham, and elsewhere in Chester and Delaware Counties. The State is singularly rich in other minerals, like the mineral paint of Parryville; steatite of Schuylkill; fire-clay of Clearfield, Farrandsville and Lock Haven; flag-stones of Bradford, Pike and other localities; bluestone of Tunkhannock and Meshoppen; chrome of Chester County; graphite of Upper Uwchlan in Chester; silver-bearing lead, mined in large quantities in Chester; nickel of Lancaster County; lead and copper of Phoenixville; salt of Kiskiminetas; sandstone of Swatara and Schuylkill; whetstone of Darby Creek; granite of Delaware and Philadelphia, taken out in large quantities; and the kaolin of Pennsbury and New Garden, used for making porcelain and china. Lancaster furnishes about all the nickel for the American coinage.

PHILADELPHIA:
PENNSYLVANIA HOSPITAL AND INSANE HOSPITALS.

The Government of Pennsylvania dwells in a governor, lieutenant-governor and secretary of internal affairs, elected for four years, and other executive officers; and a general assembly of 50 senators, elected by the people for four years, and 204 representatives elected for two years. The Supreme Court has seven judges, elected for 21 years; and there are 48 district courts; with Federal Courts at Philadelphia, Williamsport, Erie and Pittsburgh. The State Capitol, at Harrisburg, a dignified, comfortable and rather quaint structure, dates from 1819-22, and has a portico upheld by sandstone pillars, opening into a rotunda, with the Senate Chamber on one side and the House of Representatives on the other. The State Library (30,000 volumes) contains portraits of 30 Governors; and near the Adjutant-General's office are the 330 flags of the Pennsylvania troops in the Secession War.

The National Guard of Pennsylvania composes a division of three brigades, including 15 regiments and five companies of infantry, three troops of cavalry and three batteries, in all 136 companies, including over 8,000 men, enlisted for three years, and compelled to do duty during that time, or suffer arduous penalties. The State appropriates $300,000 yearly to this force, which, when in service, receives rough soldiers' fare, and is quartered in floorless tents. The infantry is armed with breech-loading Springfield rifles. The uniforms conform to those of the regular army. This is probably the most homogeneous and serviceable body of citizen-soldiery in the Union, approximating most nearly to the regular army, and costing each tax-

PHILADELPHIA: UNION LEAGUE.

payer less than in any of the five other States with large forces. The First Brigade, with headquarters at Philadelphia, includes the First, Second, Third and Sixth Regiments of Infantry, the Battalion State Fencibles, Gray Invincibles, Battery A, and the First Troop Philadelphia City Cavalry. The Second Brigade has its headquarters at Williamsport, and includes the Fifth, Tenth, 14th, 16th and 18th Infantry, the Sheridan Troop, of Tyrone, and Battery B, of Pittsburgh. The Third Brigade includes the Fourth, Eighth, Ninth, Twelfth and 13th Infantry, Battery C, and the Governor's Guard. The State Camp is at Mount Gretna, near Lake Conewago and surrounded by the beautiful South-Mountain range, in a region of great landscape charm. There are 5,000 acres of mountain and woodland and dale open to the manœuvers of the troops; a parade-ground over a mile long and half a mile wide; an admirable rifle-range; and artillery-ranges of 3,000 yards. This great estate is owned and kept in order and loaned to the State by Robert H. Coleman. In 1889, the three batteries and three troops of horse encamped here, and at the same time three batteries and two troops of United-States regulars were stationed near them, as an object-lesson for the militia. In 1884 and 1887 the National Guard went into division encampments at Gettysburg and Mount Gretna, having upwards of 7,500 men with the colors each time. The armory of the First Regiment, at Philadelphia, is a strong castellated Gothic building, with high towers and a large drill-hall. The State Arsenal at Harrisburg contains large armaments ready for use, and has also Mexican artillery captured at Cerro Gordo, and four cannon, brought to America by d'Estaing and given to Congress by Lafayette. The Soldiers' and Sailors' Home, established in 1885, occupies the former Marine Hospital at Erie and several new buildings, on a domain of 102 acres, with 300 veterans of the Secession War.

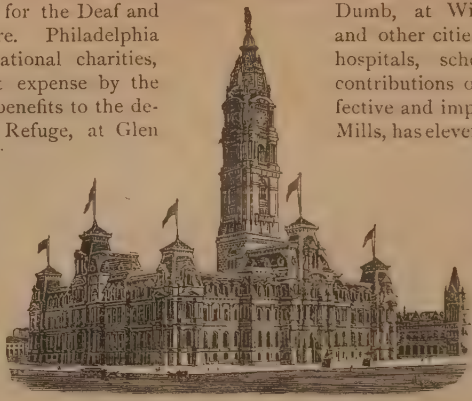
PHILADELPHIA: THE ART CLUB.

Charities and Corrections.—Pennsylvania appropriates $1,000,000 a year to its hospitals and miners' hospitals and other charities. The paupers and insane have apparently grown alarmingly in numbers since 1880, although the convict class has not kept up with the population. Besides the State, county and municipal institutions, there are 56 hospitals, ten dispensaries, and 155 homes and asylums, with property valued at over $30,000,000 (not including Girard College). There are 56,000 persons kept in the prisons and hospitals, or in receipt of relief from the towns. The Eastern Penitentiary, at Philadelphia, opened in 1829, has about 1,300 convicts, confined in separate cells (the only cellular prison in the United States). This has been regarded by many penologists as the best prison in America. Every convict is taught a trade, and kept at work. Of late years the severity has been mitigated. The Western Penitentiary at Allegheny (opened in 1826) has 690 convicts, and is conducted on the congregate system. There are above 70 county jails and work-houses, with 3,500 prisoners. The Philadelphia House of Refuge and the Reform School at Morganza (in southwestern Pennsylvania) hold 1,200 youthful offenders. The Industrial Reformatory at Huntington cost $900,000, and was occupied in 1888. It is for young men between 15 and 25, first offenders, who are released when it seems probable that they have reformed. The State asylums at Harrisburg, Dixmont (seven miles from Pittsburgh), Warren, Danville, and Norristown, and the insane asylums at Philadelphia contain 6,000 insane persons, two thirds of whom are indigent. The Training-School for Feeble-minded Children, near Media, contains 700 inmates, on a farm of 200 acres. The Institution for the Instruction of the Blind was founded at Philadelphia in 1833, and has 200 students. There are also industrial homes for the blind at Philadelphia. The Institu-

PHILADELPHIA: POST-OFFICE.

tion for the Deaf and Dumb arose at Philadelphia in 1820, and has 430 pupils (mostly beneficiaries), who are also taught tailoring, sewing and shoemaking. The Western Pennsylvania Institution for the Deaf and Dumb, at Wilkinsburg, has 160 children in its care. Philadelphia and other cities have scores of private and denominational charities, hospitals, schools and asylums, maintained at vast expense by the contributions of charitable people, and abounding in benefits to the defective and impoverished classes.

The House of Refuge, at Glen Mills, has eleven Queen-Anne buildings, erected in 1889–91, at a cost of $500,000, on a domain of 350 acres. This is a private charity, and can maintain 1,200 boys, in families of 50, each of which occupies a cottage. The cottages, workshops and chapel form an open quadrangle, commanding a beautiful view of Chester County.



PHILADELPHIA: THE PUBLIC BUILDING.

The United-States Institutions in Pennsylvania are numerous and important. The Philadelphia Post-Office, built entirely of granite, in 1873–84, at a cost of $8,000,000, is the most imposing National structure in the State. The Philadelphia Custom-House occupies a noble Doric structure of white marble, copied after the Parthenon, and erected for the United-States Bank, in 1819–24. There are handsome National buildings at Pittsburgh, Erie, and several other cities. Fort Mifflin, the only National fortress in Pennsylvania (and now ungarrisoned), guards the Delaware River below Philadelphia. In 1777 this defence was bombarded for six days and nights, by 358 British cannon, until its every gun was dismounted, and 250 out of the 300 brave Marylanders who formed the garrison had been killed or wounded. The Schuylkill Arsenal was founded at Philadelphia in 1800, and covers eight acres. Here from 700 to 1,200 women and 150 men are engaged in making the clothing, tents and bedding for the United-States Army, including all articles, from stockings to helmets. Twenty million dollars has been expended here in a single year. The Frankford Arsenal, at Philadelphia, has handsome and spacious grounds, with many fine old trees, overarching the green lawns, whose decorations are brass cannon and pyramids of black cannon-balls. This is the only Government factory for making metallic cartridges for small-arms; and it also produces fine tools and instruments and a few weapons. During the Secession War alternating gangs of men worked nights and days, Sundays and holidays alike, making up cartridges. The Allegheny Arsenal occupies spacious and highly ornamented grounds at Pittsburgh, and has many large buildings, for the making of military equipments, but now used only for storing ordnance and ordnance-stores. The Navy Yard at League Island covers 923 acres, at the confluence of the Delaware and Schuylkill Rivers, 90 miles from the sea, and at one of the most important strategic points on the Atlantic coast. It is close to the great coal and iron region of America, and the available skilled labor of a great manufacturing city, and the fresh water of the surrounding channels is favorable for the preservation of iron ships. The yard has been practically closed for some years, but a board of naval officers has recently advocated the expenditure of $15,000,000,

DENBIGH HALL.

MERION HALL.

BRYN MAWR: BRYN-MAWR COLLEGE.

to make it the foremost dock-yard of America. In a lovely flower-decked park of 25 acres, stretching along the Schuylkill River, at Philadelphia, stands the great marble pile of the United-States Naval Asylum, with its Ionic portico and trophy cannon. Here are pleasant accommodations for 200 "decrepit and disabled naval officers, seamen and marines," entitled to this rest by 20 years of man-of-war service; and furnished by the Government with pocket-money and tobacco. Each man has a room to himself, and there is a spacious dining-hall and a chapel. A large Naval Hospital stands on the Asylum grounds.

PHILADELPHIA: THE UNIVERSITY OF PENNSYLVANIA.

The Indian Training School was founded at Carlisle in 1879, and is managed and supported by the National Government, to educate and civilize the young people of the barbarous tribes. There are 800 students, mainly Apaches and Pueblos, Sioux and Oneidas, Cheyennes and Crows, with members of 37 other tribes. The boys wear blue uniforms similar to that of the American Army, and receive military and gymnastic drill. The discipline is not austere, but kindly; and the young Indians show great aptitude in their varied studies, as well as in base-ball and other sports. Each student devotes half of the day to the usual grammar-school branches, and the other half to various mechanical trades, or useful industries. Many of the students are "planted out" during vacation in white families, to dwell and work with them; and some remain, and attend the public schools during the winter, while others become apprentices and permanent workmen in established industries. The central idea of the school: "You must die as Indians, but rise as men and women," is continually kept in view by Capt. R. H. Pratt, the superintendent. This plan looks toward the extinction of the aboriginal languages and tribal relations, and the merging of all the Indians into the great composite mosaic of the American people. The United-States Barracks at Carlisle were built in 1777 by Hessian prisoners from Trenton, and burned by Confederate troops in 1863. In 1866 they were rebuilt, and used as a cavalry-school for army recruits until 1872, after which the property lay abandoned until the Indian school arose. They form three sides of a square, surrounding a beautiful parade-ground, and making a pleasant home for the wards of the Nation.

PHILADELPHIA: ACADEMY OF NATURAL SCIENCES.

Lincoln Institute is an Episcopal school at Philadelphia, partly supported by the Government, and educating in the arts of civilized life 200 Indian boys and girls, from 18 tribes.

The Pennsylvania Hospital occupies a range of quaint structures, built at Philadelphia in 1755, since which 120,000 patients have been treated within its walls. The Episcopal Hospital at Philadelphia is of great size and good fame. The Mary J. Drexel Home, built in Philadelphia at a cost of $500,000 in 1886–8, is a magnificent Gothic structure, of imported yellow German brick, serving as a mother-house and school for German deaconesses.

Education is administered in public-school property valued at $40,000,000. The yearly cost of the schools is above $12,000,000, and 1,200,000 children of school age enjoy the advantages of this magnificent system. There are 13 normal schools, at Westchester, Millersville, Kutztown, Mansfield, Bloomsburg, Shippensburg, Lock Haven, Indiana, California, Slippery Rock, Edin-

SWARTHMORE COLLEGE.

GETTYSBURG: PENNSYLVANIA COLLEGE.

boro and Clarion. Ten million dollars have been spent by the State in its schools for soldiers' orphans, which contained at one time 2,250 pupils. The Pennsylvania State College began in 1859, as the Farmers' High School, and received the United-States land-grant of 1862, becoming a prosperous industrial, agricultural and military school, on a 400-acre farm near Bellefonte. Tuition is free for Pennsylvanian young men and women.

The University of Pennsylvania was opened as an academy, in 1751, at Benjamin Franklin's suggestion. From 1828 to 1872 it occupied the site of the present Philadelphia Post-Office, and it now has a beautiful location in West Philadelphia, with grounds covering 40 acres, near the Schuylkill River. The main building is a handsome piece of collegiate Gothic architecture, with the department of Arts in one wing and the department of Sciences in the other. Near by are the Library, Biological Hall, Laboratory, Hospital, Veterinary College and Hospital, Medical Hall and Laboratory, and House for Nurses. The University also has a well-directed gymnasium and athletic grounds. The Medical School was founded in 1765, and is one of the most famous in America, with more than 10,000 alumni, and an advanced post-graduate department. Over 200 of its students come from outside of Pennsylvania, including 30 from abroad. The University library of 80,000 volumes contains several valuable special collections. The University has 180 professors and instructors, and 1,325 students, of whom 430 are academic, 490 medical, 160 in dentistry, 70 in veterinary medicine, 30 in biology, 125 in law, and 60 in philosophy.

SOUTH BETHLEHEM: PACKER HALL, LEHIGH UNIVERSITY.

The Lehigh University owes its foundation to Judge Asa Packer, who, in 1865, gave $500,000 and 115 acres of land for this purpose, and followed it with a legacy of $2,000,000, to provide for the young men of the Lehigh Valley a complete scientific and literary education, without charge for tuition. The costly and handsome University buildings stand on a terrace of South Mountain, at South Bethlehem. Besides the usual halls, there is a large gymnasium, the Sayre Observatory, a beautiful stone church, several completely equipped laboratories, and a Venetian-Gothic library, of Potsdam sandstone, containing 80,000 volumes. Nearly half of the 420 students come from outside of Pennsylvania, including 12 from foreign countries. Over 380 study in either one of the courses of civil, mechanical, mining, or electrical engineering, or analytical chemistry, and only 40 are in the literary and classical courses. Lehigh is under the care of the Episcopal Church.

Lafayette College occupies the beautiful heights above Easton, at the Forks of the Delaware, where the tortuous and mountain-born Lehigh and the lovely Bushkill flow into the greater Delaware. Lafayette received its charter in 1826, but languished for 40 years, with dingy buildings and feeble classes. In 1863 an attempt was made to close it, but the Presbyterian Synod, whose care and patronage it enjoyed, voted and acted to sustain the college. It now has a dozen or more buildings, amid beautiful park-like lawns and shrubbery, and with remarkable views over the great adjacent valleys. There are 27 instructors and 309 students. The influences are sturdily Presbyterian. Among the studies for which the college is famous are philology, and mining and engineering, the latter favored by the neighboring mines and furnaces.

PHILADELPHIA: ACADEMY OF FINE ARTS.

Washington and Jefferson College, at Washington, in southwestern Pennsylvania, was constituted in 1865 by the union of Jefferson College (chartered in 1802) and Washington College (1806). It has eleven instructors and 176 students, under Presbyterian influence.

Allegheny College began its work in 1815, and in 1833 became a Methodist institution, which now has 178 students (and 135 preparatory), and good buildings on a pleasant hill-top near Meadville. Dickinson College, chartered in 1783, and acquired by the Methodists in 1833, has 93 students in its handsome ancient and modern stone halls at Carlisle. Franklin and Marshall College, at Lancaster, is a venerable Reformed institution, with 87 students. Lebanon-Valley College (1866), five miles west of Lebanon, belongs to the United Brethren. Mercersburg College (1866), with 54 students, pertains to the Reformed Church. Muhlenberg College (1867) is Lutheran, and has 75 students, at Allentown. Lincoln University in 1866 succeeded Ashmun Institute (founded in 1854), and its broad campus and buildings crown a hill in Lower Oxford, amid the pastoral scenery of Chester. It is a Presbyterian school, devoted to educating colored men, and has 200 students. The Lebanon Classis of the Reformed Church conducts the little Palatine College (1867), at Myerstown. Bucknell University, at Lewisburg, on the West Branch of the Susquehanna, is a Baptist college, with an academy and an institute for young women, dating from 1845. Waynesburg, 46 miles south of Pittsburgh, has a large college of the Cumberland Presbyterians, founded in 1851, and with 150 students. The richly endowed Western University dates from 1819, and has its seat at Pittsburgh, near the Monongahela. The Allegheny Observatory, connected with this institution, is one of the most useful in America.

ERIE: CENTRAL SCHOOL.

NEW BUILDINGS.

PHILADELPHIA: GIRARD COLLEGE.

INFIRMARY.

Pennsylvania College arose in 1832, at Gettysburg, and is a reputable Lutheran school, with 119 students. The Hicksite Friends educate their young people at Swarthmore College, ten miles from Philadelphia, where there is a group of handsome stone buildings, on an estate of 240 acres, half park and half farm. The college has 20 instructors and 165 students, and a preparatory school of 82 students. In a mellow-tinted stone house still standing among the fine old trees on the college grounds, Benjamin West, the President of the Royal Academy, was born in 1738. Haverford College was founded in 1833 by the Orthodox Friends as a high school, and became a college in 1856. It now has 14 instructors and 111 students, in the classics, science and engineering. It is nine miles from Philadelphia, with commodious buildings on a beautiful campus of 60 acres, laid out by an English gardener more than half a century ago, and containing an unusual variety of fine trees. The library has 18,000 volumes; and there are valuable museums and laboratories, observatory and gymnasium. Among other

colleges are Ursinus (Reformed), in Luzerne County; Westminster (U. P.), at New Wilmington; Central Pennsylvania (Evangelical), at New Berlin; and Theil at Greenville.

Bryn-Mawr College was opened in 1885, for the advanced education of women, and has a park of 40 acres, near Philadelphia, with the handsome stone buildings of Taylor Hall, Denbigh Hall, Merion Hall, and Radnor Hall, and a completely equipped gymnasium. This noble institution was endowed with $1,000,000, by Dr. J. W. Taylor, of Burlington, N. J. It has 21 instructors and 80 students. Its courses are on the group system, like those at Johns-Hopkins University, with major and minor electives; and there are advanced post-graduate courses of high value. Pennsylvania has many large and important academies and seminaries, attended by thousands of pupils. The Friends conduct several very ancient schools of this kind, like that at Jenkintown, founded in 1713; Langhorne, 1790; Lahaska, 1794; Westtown, 1799; and others. They also have at Philadelphia an Institute for Colored Youth. The famous Pennsylvania Military Academy, at Chester, is practically a college, granting degrees. Ogontz School, for girls, occupies the noble mansion built for Jay Cooke, near Philadelphia.

Of the many schools of Pennsylvania none has the historic interest of the William Penn Charter School of Philadelphia. This school, in point of age ranks fourth in the United States, its only seniors being the Boston Latin School (1635), the Roxbury (Mass.) Latin School (1645), and the Hopkins Grammar School, of New Haven, Connecticut (1660). It was founded in 1689; incorporated by the Provincial Council, in 1698; in 1701–1708–1711 received charters from William Penn; and for more than 200 years it has carried forward its work without a break (even during the Revolution), and still maintains the high reputation established at the outset. The staff consists of a Head-Master and 18 assistants. A large property adjoining the Friends' Meeting House on Twelfth Street, in the heart of the city, is occupied by the school. The buildings are all modern, handsome in appearance, substantially built of brick, and thoroughly appointed; and contain class-rooms for 350 boys, a gymnasium, assembly-room, chemical and physical laboratories, a draughting room, library, and all the accessories of a completely-equipped modern school. The gymnastic exercises and the outdoor sports, for which there are exceptional facilities, and for which the school is justly famous, are under the direction of men specially qualified for such work. There is a playing field of six acres in the suburbs. There are three departments — the senior, junior, and lower, each of which has a separate staff of instructors. From 30 to 40 boys are sent to college each year. This venerable institution, though founded 200 years ago, "at the request, costs, and charges of the people of God called Quakers," is now, in its organization and methods, under the Head-mastership of Richard M. Jones, M. A., one of the most modern, and anticipates in some features what is likely to be the school of the future.

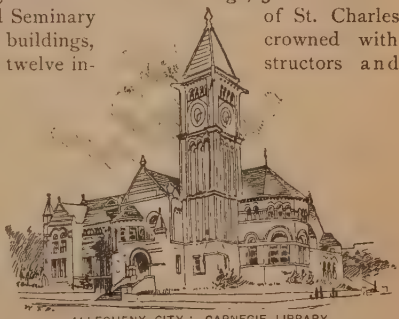
PHILADELPHIA: WILLIAM PENN CHARTER SCHOOL.

Crozer Theological Seminary at Upland is a rich Baptist school, opened in 1867. The Episcopal Divinity School, at West Philadelphia, founded in 1862, has 26 students. The Lutheran Theological Seminary at Gettysburg, dates from 1826, and has 700 alumni and 47 students. The Lutheran Missionary Institute at Selinsgrove has ten students. The Evangelical Lutheran Seminary at Philadelphia (1864) is a strong institution, with 62 students. The Moravian Theological Seminary, founded

PHILADELPHIA: LIBRARY, UNIVERSITY OF PENNSYLVANIA.

at Nazareth in 1807, is at Bethlehem, and has four professors and 25 students. The Western Theological Seminary at Allegheny City, opened in 1827, as a Presbyterian school, has six professors, 33 students and 1,500 alumni. It has three halls, and a library of 21,000 volumes. There is a divinity school for colored Presbyterians at Lincoln University, founded in 1871. The United-Presbyterian Seminary at Allegheny City dates from 1825. There is a Reformed-Presbyterian Seminary at Allegheny City. The Evangelical Lutheran Theological Seminary, at Mount Airy, near Philadelphia, has 65 students and 500 alumni, and a library of 20,000 volumes. Meadville Theological School was founded in 1844, and appertains to the Unitarians. It has six instructors and 38 students, with a library of 18,000 books. The Theological Seminary of the Reformed Church, founded in 1825 at Carlisle, moved successively to York, Mercersburg, and Lancaster. It has three professors and 42 students, and is endowed mainly with funds raised in Germany. This sect also has a divinity school at Ursinus College, 30 miles northwest of Philadelphia. The Catholic Theological Seminary of St. Charles Borromeo, near Philadelphia, with its noble buildings, crowned with domes, is a powerful diocesan institution, with twelve instructors and 140 students. Villa-Nova College, six miles distant, has several stone buildings, on a far-viewing knoll, and is conducted by Augustinian monks. It has a large farm, and a beautiful Gothic church. There are also Catholic divinity-schools at Beatty (1846) and Germantown (1818), provided with large libraries.

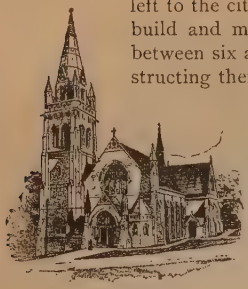
PHILADELPHIA: LIBRARY OF PHILADELPHIA.


ALLEGHENY CITY: CARNEGIE LIBRARY.

The great medical schools of Pennsylvania contain 2,600 students, and have a continental reputation for efficiency. The Jefferson Medical College, at Philadelphia, is one of the most celebrated schools in the Republic, with admirable and extensive museums, and over 500 students. The Woman's Medical College, of Philadelphia, the first in the world, has handsome buildings and a large hospital, and 161 students. The Hahnemann Medical College, at Philadelphia, is the oldest and foremost homeopathic school of America, and has large dispensaries and hospitals attached. The Medico-Chirurgical and Orthopædic Colleges, the Medical Department of the University, and the Philadelphia Polyclinic are at Philadelphia. Pittsburgh also has a medical school. Philadelphia has colleges of dentistry, pharmacy and veterinary medicine.

PHILADELPHIA: Y. M. C. A.

Girard College occupies a high-walled campus of 41 acres, at Philadelphia, with several white marble buildings, the chief of which was designed and built by Thomas U. Walter (the architect of the United-States Capitol), in 1833–47, and ranks as the most magnificent piece of Corinthian temple-architecture in America. The rich surrounding colonnades, the floors and walls, and even the roof, are of white marble, and show unusual massiveness of construction. This building contains the library, museums and class-rooms; and on either side are the plain and commodious dormitories and other structures. The college was founded by Stephen Girard, a French sailor and Philadelphia merchant, who



SOUTH BETHLEHEM: PACKER MEMORIAL CHURCH.

left to the city, in 1831, an estate valued now at above $11,000,000, mainly to build and maintain an institution for educating poor white fatherless boys between six and ten years of age, supporting them for eight years, and instructing them from the alphabet up to high-school studies. Girard College now has nearly 100 instructors and officers, and 1,600 students; and 250 more lads are waiting their turn to enter.

The Drexel Industrial Institute, nobly endowed by A. J. Drexel, with $1,500,000, was dedicated at West Philadelphia in 1891, in a handsome Renaissance building, with free industrial day and evening classes for over 2,000 boys and girls, and lecture-hall, museum and library. Another interesting institution is the Nautical School, for the naval education of Pennsylvanian boys, and occupying the sloop-of-war *Saratoga*.

Pennsylvania has nearly 50 libraries of above 10,000 volumes each. The largest is the Mercantile Library of Philadelphia, with 165,000 volumes. The Library of Philadelphia was founded in 1731, by Benjamin Franklin and the Junto Club, and has 156,000 volumes. Its Ridgway Branch occupies a magnificent classic building, erected with $1,500,000, bequeathed in 1869 by Dr. James Rush. The Historical Society of Pennsylvania, at Philadelphia, has 30,000 volumes, and many interesting relics of the past days. The American Philosophic Society is the oldest scientific institution in the Republic, having been founded by Benjamin Franklin in 1743, and renewed in 1769. In its quaint old building at Philadelphia, the society has a library of 60,000 volumes. The Franklin Institute, founded in 1824, at Philadelphia, owns a valuable library of 40,000 scientific books; the German Society has 30,000; the Athenæum, 25,000; the Apprentices' Library, 30,000; and the Mutual, 44,000. The Carnegie Free Library, founded at Allegheny City, by Andrew Carnegie, is one of the noblest buildings in America, for a library of thousands of volumes, an art-gallery, and a great organ. It is of Maine granite, in Romanesque architecture. President Harrison and other eminent men took part in the dedication ceremonies, in 1890. The Academy of Natural Sciences, founded in 1812, at Philadelphia, has a handsome Gothic building, with 800,000 specimens in its museums, and a library of 40,000 books and pamphlets. The Venetian-Gothic building of the Academy of Fine Arts, at Philadelphia, contains one of the most interesting collections of paintings and sculptures in America, and an efficient system of art-schools. The Art Club of Philadelphia occupies a spacious Renaissance edifice, with richly decorated galleries. The Pennsylvania Museum and School of Industrial Art occupies the great granite and iron Memorial Building, in Fairmount Park, with its rich collections in art, manufactures, archæology and science, and is designed to be an American South-Kensington Museum, promoting instruction in the arts. Elsewhere in Fairmount Park is the Zoölogical Garden, the largest in America, covering 33 acres, with its lions and tigers, bears and monkeys, seals and other interesting animals. The beautiful Horticultural Hall contains admirable collections of rare plants and shrubs, of more than 7,000 varieties. Philadelphia also possesses the Wagner Free Institute of Science, with its free lectures and museum; the Franklin Institute, for the development of the mechanic arts; and the School of Design for Women.

PHILADELPHIA: CATHEDRAL OF ST. PETER AND ST. PAUL.

PHILADELPHIA: CHRIST CHURCH.

Philadelphia has the great buildings of the American Sunday-School Union and the Presbyterian Board of Publication.

The American Sunday-School Union was founded in 1824, at Philadelphia, where its headquarters still remain. This wonderful evangelical agency is managed by 36 laymen of various sects, and through its missionaries has organized more than 80,000 Sunday schools, with 3,300,000 pupils, besides helping even a greater number of existing schools, and originating many of the most successful and efficient of the methods of the modern Sunday-school system.

PITTSBURGH, AND THE OHIO RIVER.

Bethlehem, on a plateau over the Lehigh River, was founded in 1741 by Bishop Nitschman, and has ever since been the headquarters of the Moravian Church in America. Its ancient stone churches and seminaries, the homes of the Single Sisters and Widows, the sacredly kept cemeteries, and the historic Sun Inn, still preserve noble and heroic memories of the last century. The Moravian Seminary for Young Ladies dates from 1749, and has 15 instructors and 110 students, with over 7,000 alumnæ. Litiz, eight miles north of Lancaster, is a beautiful old Moravian hamlet, in which are still preserved the venerable church, and the limestone houses for the brothers and sisters. At Nazareth is Nazareth Hall, built in 1755 as a mansion for Count Zinzendorf, and since 1785 famous as a Moravian Boarding-School for Boys, with 3,000 graduates. Here, also, stands the great stone house built by George Whitefield for a school, and now occupied by the Moravian Historical Society and home for retired missionaries. At Ephrata, near Litiz, still stand the ancient buildings of the monastery of the German Pietists, founded in 1732, and at one time containing 70 monks and nuns, robed in white Capuchin garments, and devoting much time to printing, illuminating manuscripts, and religious exercises.

EASTON, AND LAFAYETTE COLLEGE.

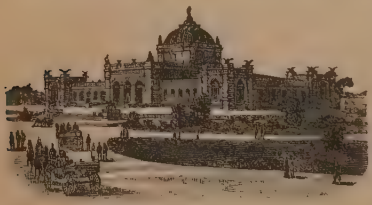
The Catholic settlements on the Allegheny Mountains, around Loretto, were founded by Galitzin, a Russian prince turned missionary-priest, who labored here from 1799 to 1840. There are six Catholic parishes, with a Franciscan monastery and the convent of St. Aloysius, at Loretto, and a Benedictine monastery at Carrolltown. The mother-house of the Benedictine nuns of America is at St. Mary's, in Beaver County; and the American Benedictine monks have their headquarters at Latrobe, on Loyalhanna Creek. The oldest American convent of the Sisters of Mercy is at Pittsburgh. Philadelphia, Pittsburgh, and other cities have large Catholic colleges.

PHILADELPHIA: STATUE OF MORTON McMICHAEL.

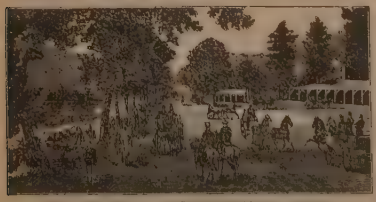
Chief Cities. — Philadelphia, the happy and comfortable old Quaker City, rests mainly on a level plain between the Delaware and Schuylkill Rivers, fringed with busy wharves, and laid out on the plan of ancient Babylon, with 2,000 miles of the most regular and rec-

tangular of streets, traversed by 300 miles of street-car lines. Up to the year 1825, this was the most populous city and the leading commercial emporium of America, with multitudes of ships in all distant seas. The completion of the Erie Canal turned a large share of this trade to New York. The Delaware sweeps in a noble crescent in front of the city, which is 45 miles from Delaware Bay, and 120 miles from the ocean. The channel is deep enough for vessels drawing 25 feet of water, and four lines of European steamships, and many coastwise lines, sail from this port. Philadelphia is one of the foremost manufacturing cities of the world, with 12,000 factories, employing 250,000 operatives, and producing $500,000,000 worth of goods yearly. Among these are textiles, iron and steel, carpets, sugar and clothing. There are 60 brick-yards, making yearly 350,000,000 brick, including the famous pressed and moulded varieties. The immense extent and diversity of Philadelphia's manufactures has drawn hither an army of a quarter of a million industrious artisans; and through the skilful and conservative workings of coöperative building associations, these happy toilers have more comfortable and pleasant homes than those of any other city. There are more houses in Philadelphia than in New York; and these are to a large extent neat and commodious brick buildings, owned by their occupants, and lining the quiet streets for scores of leagues. It was the gigantic hero-king of Sweden, Gustavus Adolphus, who planned to found on the banks of the Delaware a city where "every man should have enough to eat, and toleration to worship God as he chose." The wonderful markets of Philadelphia, unrivalled elsewhere in America in their plentiful and varied supplies, ensure enough to eat, even for the great population of the city; and religious toleration is manifested by over 700 churches, from the grand Catholic Cathedral of St. Peter and St. Paul down to the bare little meeting-houses of the Friends. This community for many decades led all its sisters in literary, artistic and scientific culture, and the great libraries and educational institutions are of National interest, even in these later days of over-ruling material prosperity. No American city surpasses this in the wealth of its historical associations, especially as relating to the founding of the Great Republic. Here stand Independence Hall and Carpenters' Hall; the venerable Christ Church, founded in 1727, where Washington worshipped, and in whose grave-yard at Fifth and Arch Streets Franklin is buried; the site (at Seventh and Market Streets) where Jefferson wrote the Declaration of Independence; the site (239 Arch Street) where the first American flag was made, under Washington's supervision; and many other shrines of patriotism. Philadelphia has some of the finest edifices in America, the foremost of them being the Public Building, a huge fire-proof pile of Massachusetts marble, with 520 rooms, covering over four acres, and with a tower which is to be 537½ feet high, and crowned by a colossal bronze statue of William Penn, 36 feet high. This structure was begun in 1871, and may not be finished until 1895, having cost over $10,000,000. It is the largest municipal building in the world, a snowy marble pile looming over the city with grandiose effect. Near this municipal palace is the Masonic Temple, built in 1868-73, at a cost of $1,500,000.

PHILADELPHIA: HORTICULTURAL HALL.



PHILADELPHIA: MEMORIAL HALL.



PHILADELPHIA: THE WISSAHICKON DRIVE.

Much interest attaches to the beautiful bridges over the Schuylkill, one of which is said to be the widest in the world; the famous Academies of Music, of the Fine Arts, and of Natural Sciences; the homes of the Union League, and the Philadelphia, Manufacturers', University, Rittenhouse, and other clubs, and

PHILADELPHIA: SCENES IN FAIRMOUNT PARK.

the Schuylkill Navy Athletic Club; and the great buildings of the financial and fiduciary institutions, newspapers, and railroad and mercantile corporations.

The Schuylkill and Wissahickon Valleys and their bordering hills are adorned by Fairmount Park, the largest city park in America, covering 2,791 acres, and including the domains of many ancient and historic country-seats, like Robert Morris's Lemon Hill, John Penn's The Solitude, Joseph Bonaparte's Lansdowne, Judge Richard Peters's Belmont, and the cottage wherein dwelt Tom Moore, the Irish poet. Among these far-viewing hills are many noble works of art, the magnificent monument to Gen. Washington, the seated statue of Abraham Lincoln, the Humboldt monument, the equestrian statue of Gen. Meade, and the memorial statue of Morton McMichael, for 40 years one of Pennsylvania's foremost public men, whose career and character are tersely described by the inscription: "An honored and beloved citizen of Philadelphia."

PHILADELPHIA: CONTINENTAL HOTEL.

The name of Kingsley has been identified with the Continental Hotel, Philadelphia, almost from the day it was opened to the public, nearly 30 years ago. It was opened by J. E. Stevens & Co., in 1860, just prior to the breaking out of the Secession War. During the war, J. E. Kingsley began his connection with the hotel; and in 1876 his son, E. E. Kingsley, was admitted to an interest. The Continental, as a hotel, possesses peculiar features of its own. Its interior arrangements and appointments are elegant, and in convenience and comfort the house is as nearly perfect as possible. There is an abundance of stairways, and the arrangements for the prevention and control of fire and for the escape of guests in case of fire are of the best. This

hotel was one of the first in the country to introduce an elevator, which was at that time a curiosity. Almost the whole line of distinguished visitors to Philadelphia for more than a quarter of a century have made their temporary abode at the Continental. Among these have been the Prince of Wales and Dom Pedro of Brazil, and all of the Presidents of the United States from Lincoln to Harrison have slept beneath its roof. When opened it was unsurpassed by any hotel in the land, and with its present complete renovation, remodelling and refurnishing, the Continental still compares favorably with the best of the hotels. It is located at the very heart of the business part of the city, across from the Post-Office.

Pittsburgh is nobly placed where the Allegheny and Monongahela Rivers unite to form the Ohio, 354 miles west of Philadelphia; and ranks as one of the most important manufacturing cities in the world, in iron and steel, brass and copper, cotton and flour, glass and paper. It is the centre of a rich mineral district, with vast transportation facilities by river and canal and several converging railways. The Pittsburgh district has 20 blast-furnaces, with a yearly capacity of over 1,000,000 tons of pig-iron; 64 iron and steel mills, making 1,500,000 tons yearly; 56 glass-works, 20 natural-gas companies, and 60 oil-refineries. The 70 local companies produce vast quantities of coal and coke. The largest cork-factory in the world is in operation here. The local shipyards build many steamboats, for service on the Western rivers. The chief of the many civic structures is the Court House, designed by H. H. Richardson, and built by Norcross Brothers, at a cost of $2,500,000. This noble granite palace of justice is adorned with an impressive tower 420 feet high. Allegheny City lies on the picturesque heights opposite Pittsburgh, and has many large and prosperous factories.

PHILADELPHIA: PENNSYLVANIA RAILROAD, BROAD-STREET STATION.

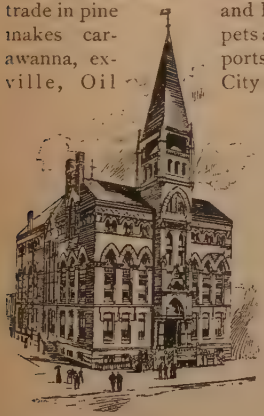
Reading is a compact city, of German origin, on the narrow plain between the Schuylkill River and Penn's Mount, with canals and railroad junctions and immense repair-shops, furnaces, rolling mills and brass and steel works, and a profitable trade with the rich farming lands of Berks County. Scranton is a sombre and prosperous manufacturing city, founded in 1840, on a plateau near the Lackawanna River, with immense steel works and collieries, and large Welsh and German populations. Wilkes-Barre, the metropolis of the lovely Valley of Wyoming, occupies a pleasant site on the winding Susquehanna, in the midst of a productive coal-mining region. The men who founded the town, in 1772, named it in honor of two eminent partisans of American liberty in the British Parliament. At Harrisburg, the Susquehanna, just escaped from the wild passes of the Blue Mountains, is a broad and lovely stream, flowing around many islands. Amid this pleasant scenery stands the capital of Pennsylvania, with its interesting public buildings and great rolling-mills and other manufactories, whose products are valued at $12,000,000 a year. Lancaster owes its foundation to German Lutherans, and was for many years the capital of Pennsylvania and the largest inland town of the United States. It is a quaint and compact city, built mainly of brick, and in a remarkably rich farming country, "the Garden of America," near Conestoga Creek. Here the sect of the United Brethren arose; and near by Robert Fulton was born, and James Buchanan lived and died. York, with its seven bridges over the Codorus, 72 schools, 35 churches, and costly public buildings, is the manufacturing and commercial centre of one of the richest agricultural regions in America. Easton is a wealthy manufacturing city, nestling among the high hills where the Lehigh and Dela-

PITTSBURGH: BALTIMORE & OHIO RAILROAD STATION.

ware Rivers meet. Johnstown, destroyed in 1889 by flood, has risen again, among the western Alleghenies. Chester, the famous ship-building city on the Delaware, and the oldest settlement in Pennsylvania (founded by the Swedes in 1644), has 30 cotton and woolen mills, besides steel-works and boiler and engine shops. The Delaware-River Iron Ship-building and Engine Works were founded at Chester by the late John Roach in 1872, and have built many steamships for the Oregon, Brazilian Mail, Old Dominion and Mallory Lines, besides swift and powerful men-of-war, and the huge Pacific-Mail steamships, *City of Pekin* and *City of Tokio*.

PHILADELPHIA: BALTIMORE & OHIO RAILROAD STATION.

Allentown is a comfortable Pennsylvania-Dutch manufacturing city, looking from its embowered plateau over the rich farming and mining lands of the Lehigh Valley. There are enormous iron and rolling-mills in this vicinity. Altoona lies at the base of the Alleghenies, at the head of the Tuckahoe Valley, and has the immense shops of the Pennsylvania Railroad, and other industries. Erie extends for a league along Presque-Isle Bay, one of the best harbors on Lake Erie, and has a large shipping trade, besides valuable manufactures and costly public buildings. It occupies the site of a French fort built in 1749, and was the headquarters of Perry's victorious naval squadron. Hither come vast fleets laden with Michigan iron and Canadian lumber, and carrying westward cargoes of coal. Meadville makes iron and woollen goods, on the Venango River. New Castle, in Western Pennsylvania, has iron, glass and other mills, and rich mines. Norristown, on the Schuylkill, 16 miles from Philadelphia, is a pleasant educational and manufacturing county-town, near the rich limestone country of the Great Valley. Phœnixville, with its iron and pottery works, lies on the Schuylkill, 27 miles from Philadelphia. Pottsville is the great shipping-point of Schuylkill coal. Williamsport, on the West Branch of the Susquehanna, enjoys a great trade in pine and hemlock lumber. Bristol, an ancient borough on the Delaware, makes carpets and iron goods. Carbondale, among the high ridges on the Lackawanna, exports enormous quantities of anthracite coal. Bradford and Titusville, Oil City and Corry have been built up by the petroleum industry.



PHILADELPHIA: HAHNEMANN MEDICAL COLLEGE.

Commerce is favored by the central position of the State, with Pittsburgh at the eastern head of navigation on the western rivers, Erie receiving the shipping of the Great Lakes, and Philadelphia as one of the foremost Atlantic ports, with important steamship lines to Europe and along the coast. The first steamboat on the Western waters of the United States was the *New Orleans*, launched at Pittsburgh early in 1811, and afterwards used as a packet between Natchez and New Orleans. Since then thousands of boats have been constructed here, including many gunboats used in the Secession War. At the other end of the State, in Philadelphia, the great ship-yards of Wm. Cramp employ 2,200 men, and among their works have been the war-ships *Philadelphia*, *Newark*, *Vesuvius* and *Yorktown*.

Railroad companies in Pennsylvania number 250, with $750,000,000 paid-in capital stock and $810,000,000 of debts. The roads and equipments cost upwards of $1,000,000,000. They have 9,715 miles (15,063 miles of track) in Pennsylvania, mainly of steel rails, with 5,800 locomotives and 3,700 passenger-cars, and over 200,000 freight cars. The passengers carried exceed 92,000,000 a year. These lines also transport yearly 42,000,000 tons of through freight and 100,000,000 tons of local freight, besides 100,000,000 tons of coal, 25,000,000 tons of iron, and 3,500,000 tons of oil.

The business is increasing at a prodigious rate. Over 87,000 men are employed in Pennsylvania alone.

LEWISBURG: BUCKNELL UNIVERSITY.

The Pennsylvania Railroad controls over 6,000 miles of routes, 2,555 of which are in the Pennsylvania Division, whose net earnings are above $12,000,000 yearly. This wonderful route, with its daring feats of constructive engineering, was built in 1847–54, from Philadelphia to Pittsburgh. The passage across the Allegheny Mountains affords an impressive experience, and unfolds magnificent mountain and valley views. This section leads up very heavy grades, insomuch that on the descent trains shut off steam and keep on the brakes for eleven miles. The famous Horse-Shoe Bend, near Kittanning Point, sweeps around the head of a great ravine, so that the locomotive may be seen from the rear cars, going almost in an opposite direction. The railroad from Mauch Chunk to Summit Hill (nine miles) began operations in 1827, the cars descending by their own gravity, and being drawn back by mules, over wooden rails faced with thin bars of iron. Two years later a 16-mile line was built in the Lackawanna region, the cars being drawn up short steep planes by stationary engines, and descending the ensuing long planes by gravity. The Philadelphia & Columbia line was finished in 1834; and the Harrisburg & Lancaster in 1838. The Broad-Street station of the Pennsylvania line is one of the grandest and costliest in the world. Its train-shed was built by the Keystone Bridge Company of Pittsburgh. The long bridge across the Susquehanna River was constructed by the Edge Moor Company, of Wilmington (Del.). The Baltimore & Ohio Railroad has an extensive system of tracks in Pennsylvania, reaching Pittsburgh and Johnstown in the west, and Philadelphia in the east.

The Philadelphia & Reading Railroad controls 1,583 miles of track, and has an enormous coal freight, owning, in conjunction with the Reading Coal & Iron Company, 75 collieries and 160,000 acres of coal-lands. Not far from Susquehanna ("the City of Stairs," with enormous railway shops) is the Starucca Viaduct, a noble piece of masonry 110 feet high, on which the Erie Railway crosses the Starucca Valley. In this same region, the railway running north from Carbondale crosses Mount Ararat, one of the Alleghenies, 2,500 feet above the sea, which is the highest point reached by any standard line east of the Rocky Mountains.

Canals are still operated for 778 miles, including 200 miles of slackwater navigation; and 10,000,000 tons of freight (mainly coal) pass over them yearly, resulting in tolls of $2,800,000. They cost the State $50,000,000, but have lost most of their value now, and are controlled by the railroads and mining companies. The amount of freight carried by the canals has more than doubled during the past five years. There are 1,500 canal-boats, 500 locks and 110 basins. The great canal improvements began as far back as 1790, when Gov. Mifflin contracted for improving navigation on several streams. The Union Canal was begun in 1792; the Conewago Canal, around the Great Falls of the Susquehanna, in 1793; the Schuylkill Navigation Canal, between 1815 and 1825; and the North-Branch Canal, in 1854. The State in 1828–34 joined Philadelphia to Pittsburgh by a combination route, from Philadelphia to Columbia, 82 miles, by railroad; thence to Hollidaysburg, 172 miles, by canal; thence to Johnstown, 36 miles, by the Portage Railroad; and thence by canal down the valley to Pittsburgh, 104 miles. The famous Allegheny Portage Railroad, built in 1831–2, began at Hollidaysburg, whence five inclined planes, joined by winding levels, ascended to the crest of the Alleghenies, 2,500 feet above the sea, and 1,398 feet above the base. Another series led down 1,172 feet to Johnstown, the head of navigation on the waters of the West. The canal-boats were built in sections, detached on reaching the base of the Alleghenies, and placed on trucks, which were hauled up the inclines by ropes attached to stationary engines, and lowered in

PITTSBURGH: CITY HALL.

a similar manner on the other side, the emigrants and freight remaining on board. The main line of the State public works, from Philadelphia to Pittsburgh, was sold by Gov. Pollock to the Pennsylvania Railroad, in 1857, for $7,500,000; and the next year the Sunbury & Erie Railroad bought also the Delaware Division Canal and the canals above the Juniata, for $3,500,000. The Pennsylvania Canal runs from Columbia, on the lower Susquehanna, to Nanticoke, in the Valley of Wyoming, 144 miles; from Junction to Huntington, up the Juniata Valley, 90 miles; from Northumberland to Lock Haven, up the West Branch, 66 miles; and from Clark's Ferry to Millersburg, 12 miles. Coal, lime, and lumber form the chief freight. Most of the canals from Harrisburg westward were abandoned in 1889, the Pennsylvania Railroad having rendered them superfluous. The canal from Columbia to Havre de Grace is 45 miles long. The Delaware Division Canal from Easton to Bristol, 60 miles, and the Lehigh Coal & Navigation Company's Canal from Easton to Coalport (47 miles), are used chiefly for coal. The Delaware & Hudson Canal, from Honesdale to Eddyville, N. Y., 108 miles (25 miles in Pennsylvania), cost $7,000,000, and carries 1,300,000 tons of freight (mainly coal) yearly. The Monongahela Navigation Company cost $1,800,000, and affords slackwater navigation from Pittsburgh 86 miles south to New Geneva. These works date from 1836–44, and have been of vast benefit to the coal-trade. The Schuylkill Canal leads from Philadelphia to Reading and Schuylkill Haven. Surveys are in progress for a great ship-canal connecting Lake Erie and the upper Ohio River.

The Newspapers cover the entire State with their issues, the most important being published at Philadelphia and Pittsburgh. The journalism of the former city is distinguished by George W. Childs's *Public Ledger*, Col. A. K. McClure's *Times*, the *Press*, *Item*, *News*, *Telegram*, *Inquirer*, and other papers. Here, also, is published one of the most ancient newspapers in the world, the famous *North American*, which was founded in 1771, and has had an uninterrupted career of success and beneficence. It is sold for a cent a copy, and yet belongs to the Associated Press, and has one of the ablest bands of editorial writers in America. The present prosperity and high repute of the paper are largely due to the efforts of the late Hon. Morton McMichael, for many years its editor, proprietor and director. The editors and publishers now are Morton McMichael's Sons.

The Philadelphia Record, which has by far the largest circulation of any paper in Pennsylvania, ranks among the half dozen daily papers of the United States having a circulation of over 100,000. It dates back, under its present management, to January 1, 1877, when it was purchased by William M. Singerly from William J. Swain, who had begun its publication on May 14, 1870. Its circulation was very limited under the old management, but it now averages over 126,000 a day, and is constantly growing. *The Record* is a one-cent paper, being one of the pioneers in the miraculous work of publishing a complete, newsy, clean and interesting sheet at a price within the reach of everybody; and it is essentially a newspaper of the people and for the people. It is a bold advocate of the reform of many abuses that bear heavily upon the people, such as the discriminations of railroad companies, combinations of the coal-producing corporations to keep the price of that necessity far above what it should be, and the exactions of the tariff laws in the interest of the rich against the poor. *The Record* broke up the bogus medical colleges in Philadelphia that made a practice of selling diplomas for a trifle. It has for years sold coal to consumers at a reasonable price, compelling dealers to give up the extortionate rates they were accustomed to charge. In this way alone it has saved millions of dollars yearly to the people. *The Record* has led among the papers of Philadelphia in all efforts to improve the trade of that city and to build it up as a commercial port. With this end in view, it has always advocated the utmost freedom of competition, and the

PHILADELPHIA:
"PHILADELPHIA RECORD."

breaking down of all artificial barriers to its development. It occupies a handsome building on Chestnut Street, which was planned for the special convenience of the working force of the paper, rather than of tenants. The proprietor of *The Record*, William M. Singerly, is known throughout the country as a progressive man of affairs and a strong Democrat, and in politics his paper, though not a partisan sheet, reflects his views.

Paper-making in America took its rise in Pennsylvania, the first mill having been built in 1690, on a tributary of the Wissahickon Creek, and operated by the Rittenhouses, who had been engaged in the same business in Holland. Another of these ancient establishments was the famous Ivy Mill, founded in Delaware County, by Thomas Willcox, in 1727. Paper was made here from 1729 to 1872, and the venerable edifice still stands, as an object of fine artistic beauty, with the ivy trailing from its walls, and the stream rippling merrily by. The industry has taken on a new development of modern ingenuity and perfection, and the old Ivy Mill is succeeded by the two Glen Mills of the James M. Willcox Paper Company, at Glen Mills, Delaware County, employing 200 persons, and making a large variety of fine papers from linen and cotton rags. Their product includes bond, parchment and music paper, and the finer grades of book paper. Great quantities of bank-note paper have also been made here, and the Colonial bills were printed on the Willcox paper, which was also used by the United-States Government until 1882. The Glen Mills date from 1836, and were built by James M. Willcox. They are now conducted by William F. Willcox, under the name of the James M. Willcox Paper Company.

GLEN MILLS : THE JAMES M. WILLCOX PAPER CO.

Since the philosopher and statesman, Franklin, long a resident of Philadelphia, was a printer, it is a custom to look to this city as a leader in all that pertains to the typographic art. Here was established the first type-foundry in America. The firm is to-day known throughout the world as the MacKellar, Smiths & Jordan Company, although it was established nearly a century ago, in 1796, by Binney & Ronaldson. In regular succession from these original proprietors the present firm has come down, although it was not formally incorporated until 1885. Two of the present proprietors have been connected with the concern for half a century, and others for various periods, varying from 35 to 20 years. The two large buildings occupied by the company are on Sansom Street, one of brick, and the other of brownstone ; 300 persons are given employment, and the amount of lead, antimony, tin, copper and brass used within the limit of a year is something enormous. The international expositions of New-York, Sydney, Philadelphia, Melbourne, Paris and others have all recognized the excellence of the product of this company by the gifts of gold medals and other awards of merit. Some of the most valuable and ingenious machinery for the manufacture of type has been designed and is in use in this foundry. The MacKellar, Smiths & Jordan Company is not merely the oldest type-foundry, but it is also conceded by every one to be incomparably the largest and foremost establishment of its kind on the whole continent. It has also several extensive agencies in South America, Australia and Europe.

PHILADELPHIA : MACKELLAR, SMITHS & JORDAN.

The Mayor of the great city of Philadelphia, with its million of inhabitants, typifies in his own personal success the grand opportunities that are open to every child in our glorious American Republic, where neither rank nor wealth nor state, but a man's own ability,

obtains the highest honors of the land. The boy who began in the humblest position in a second-hand book shop, and afterwards became its owner, has, at the age of 37, been chosen by over 40,000 majority, the chief magistrate of one of the greatest cities of the world. That ambition to be only at the head has built up in Philadelphia the largest old book-store in America. It has been for many years celebrated under the name of Leary's, although it has now passed into the hands of Edwin S. Stuart, the successor to Leary & Co. This unique establishment buys and sells more second-hand books than any other store in the country, and at all times carries 300,000 volumes on its shelves and counters. Its patrons are found in all parts of the world, and large orders come from Europe and Asia, while thousands of American scholars find here rare treasures of bibliography, filling five stories of the building, and admirably arranged in departments,—standard, religious, musical, French, German, legal, scientific, Americana, and full sets of magazines. The business was founded in 1836 by W. A. Leary, and passed, in 1865, to his son, W. A. Leary, Jr. Edwin S. Stuart, who had entered the store as a boy, became manager in 1871, and bought out the business in 1875, since which he has greatly extended its operations. Mr. Stuart has also taken a prominent part in public affairs, and has held several honorable offices prior to his election, in 1891, as Mayor of Philadelphia.

PHILADELPHIA : EDWIN S. STUART. LEARY'S OLD BOOK-STORE.

Finances.—The aggregate taxation of Pennsylvanians for all purposes is $38,000,000 yearly. The State revenues are $7,500,000, most of which comes from taxes on the $1,200,000,000 stock and income of local corporations. The funded debt draws 3½, 4 and 5 per cent. interest. Most of this debt was incurred half a century ago, in the development of routes across the Alleghenies. The county and municipal debts exceed $100,000,000.

It is interesting to know that the first bank chartered in the United States is still in honored existence and in active operation in Philadelphia. It is the well-known Bank of North America. Notwithstanding the fact that this bank was re-organized under the national banking law in 1864, the word "National" does not appear in its title. This is in pursuance of a special arrangement with the Comptroller of the Treasury. The bank has an interesting history. It was founded in the year 1781, its leading spirit being Robert Morris. Its early days were coeval with the inception of the Republic, Philadelphia being at that time the seat of the National Government. The bank was chartered by the Provincial Congress, December 31, 1781, and opened its doors January 7, 1782. Many of the most prominent citizens of Philadelphia of that day were identified with the bank at the outset. It was first opened for business in the store of its cashier, Tench Francis, on Chestnut Street, above Third Street, and in these quarters it remained for 65 years. In 1847 the commodious building which the bank now occupies was erected upon the same site. During the late war this bank was one of the first to offer loans to the Government at a low rate of interest, and one of the earliest subscribers for the bonds of the country. During its existence for more than a century the Bank of North America has had but eight presidents, the present one being John H. Michener. The centennial of the establishment of the bank was observed in the publication of a history of its career. It is to-day, as it always has been, a quiet and conservative institution, and in its elderly manner has set a good example for all financial and fiduciary institutions. It is one of the largest national banks in Pennsylvania, with resources of $7,000,000.

PHILADELPHIA : BANK OF NORTH AMERICA.

The First National Bank in Philadelphia is historical, as being the first bank in the United States chartered under the National Bank act. The bank commenced business in July, 1863. The original capital was $150,000, but this was subsequently increased to $1,000,000.

PHILADELPHIA: FIRST NATIONAL BANK.

A recent statement shows surplus and undivided profits of $750,000, with deposits of about $6,000,000, and total resources exceeding $10,000,000. The president is George Philler, a well-known financier of Philadelphia. The cashier, Morton McMichael, Jr., is the honored president of the American Bankers' Association, composed of nearly all the banks in this country. The bank building is a large structure, 60x175 feet, with an imposing granite front, on Chestnut Street. As with some other great Philadelphia banking institutions, it was built and is entirely occupied for the bank's own business. From the day of opening, the First National Bank has had an uninterruptedly successful career. It has paid in dividends over $3,000,000; and is one of the soundest of Pennsylvania's financial institutions.

The Pennsylvania Company for Insurances on Lives and Granting Annuities is the oldest trust company in the United States. Incorporated as a life-insurance company March 10, 1812, it was in 1836, by an act of the Legislature and by various supplements, given the fullest powers as to the execution of trusts, authority being given it to act in every kind of fiduciary capacity, whether as trustee, executor, administrator, committee in lunacy, or in any other way whatever. It has also been granted the rights and powers of a safe-deposit company, and its vaults are a marvel in extent and security. Ever since 1836 the chief business of the company has been that of trusts, and up to within a recent date it was the only such company, not only in Philadelphia, but in the United States. Its capital has been gradually increased from $500,000 to $2,000,000, to which has been added a surplus of $2,000,000. It carries on business in its own building, at 517 Chestnut Street, immediately opposite the entrance to Independence Hall. The building is an imposing one of granite, in the Romanesque style of architecture. It covers a lot 81 feet front on Chestnut Street, by 262 feet deep to Minor Street. It is five stories high in front, and two stories in the rear, and in the centre is a vast hall, lighted from above, 120 feet long by 80 feet wide, and 52 feet high, in which the trust and general business of the company is conducted. The whole of the building is used by the company, and by it alone. It was built expressly with a view to the needs of the business, and in this respect is unique in its character. For safety of the securities entrusted to the company's charge, and the comfort and convenience of persons having business with the company, it has no equal. Some idea of the extent of this business may be gained when it is stated that the rentals for real estate in the company's charge, not including ground-rents, exceed $1,000,000 a year, while the yearly receipts from other securities, held by the company in trust, many times exceed that amount.

PHILADELPHIA: PENNSYLVANIA COMPANY FOR INSURANCES ON LIVES AND GRANTING ANNUITIES.

At the corner of Broad and Chestnut Streets stands the magnificent stone office-building of the Girard Life-Insurance, Annuity and Trust Company. Its Roman-arched portals, its beautiful tower and its general appearance of combined massiveness and beauty at once command the attention of the visitor, and the building is the pride of the city resident. The nine stories are fire-proof throughout, and admirably adapted for the prosecution of the business of the company, and also of the large and varied business interests occupying the 120 offices on its upper floors. The site of the building, only 100 feet square, was bought for $567,000, the highest price ever paid for land in Philadelphia. With one exception, the Girard is the oldest trust company in Philadelphia. It was established in 1836, and has been in successful operation ever since. Its capital is now $1,000,000, fully paid in. It has in

addition thereto a surplus fund of $2,000,000. The Banking Department receives deposits of individuals and corporations, and allows interest at 2 per cent. on daily balances. No commercial paper is discounted, but call loans are made on approved collaterals, and collections are promptly made in all parts of the country. In the Trust Department many large estates are managed; and the Real-Estate Department is especially equipped for the purchase and sale of Philadelphia real-estate. The Safe-Deposit Department is provided with wonderfully-constructed vaults, both fire and burglar-proof, around which constant inspection is maintained night and day, and absolute security obtained. The life-insurance business was abandoned many years ago; and the attention of the company is devoted entirely to a trust and banking business and allied interests. The Girard Company is managed by gentlemen of high standing in Philadelphia, and the company is justly regarded as one of the most powerful and substantial institutions of the city and State. The President is Effingham B. Morris; and the Vice-President is Henry Tatnall.

PHILADELPHIA: GIRARD LIFE-INSURANCE, ANNUITY AND TRUST CO.

PHILADELPHIA: FIDELITY INSURANCE, TRUST AND SAFE-DEPOSIT CO.

The preëminent fiduciary and financial institution of Pennsylvania is the Fidelity Insurance, Trust and Safe-Deposit Company of Philadelphia. It occupies its own beautiful marble double building on Chestnut Street, which, notwithstanding its heavily-barred windows, is a striking ornament to the city. The building is supplied with huge vaults, wonderful in their construction, and filled with a store of silver-plate, jewels, bonds, deeds and certificates on stock sufficient for more than one king's ransom. No estimate can be made of the value of property in these vaults. Their safety is secured by ingenious mechanical devices, and ever-watching and armed officers, who are compelled to go through such series of reports that they can never be absent from their posts. But aside from the safe-deposit vaults, for the storage of valuables, the company does a general money deposit and trust business, the trust department being authorized by law to execute trusts of all descriptions. It also furnishes letters of credit, available in all parts of Europe. The capital of $2,000,000 and surplus of $2,000,000 additional give a wonderful security to all of its operations. The gross assets are over $16,000,000, wholly apart from the trust department, which by law is kept absolutely distinct from all others. The success of the Fidelity has made it one of the financial institutions in which all Pennsylvanians take great pride.

Insurance is a flourishing business in Pennsylvania, which has numerous strong companies of her own, and also local offices of the foremost outside corporations. One of the latter, the Mutual Life-Insurance Co., of New York, owns and occupies a magnificent granite building in Philadelphia.

PHILADELPHIA: PENN MUTUAL LIFE-INSURANCE CO.

Life-insurance is not merely of financial but of paramount interest. Pennsylvania has numerous fire, marine and life-insurance companies, but standing unapproached by any of these is the Penn Mutual Life-Insurance Co., one of the truest and soundest of the life-insurance organizations of the world. The company was organized in 1847, and during these 44 years, in its own conservative way, has made wonderful advances, such advances as could be achieved only with the un-

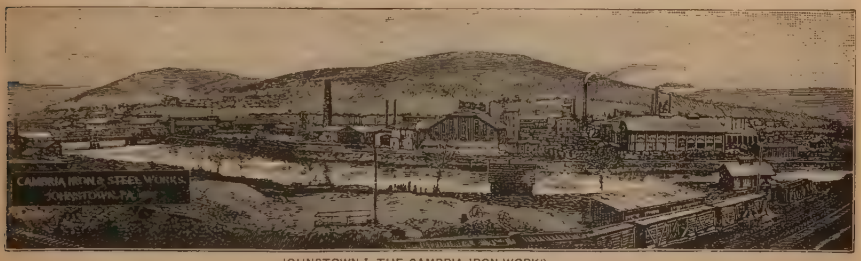
doubted confidence of the people. It has net assets of more than $16,500,000; and has paid death claims of $12,000,000, and matured endowments of $1,500,000. In 1891 it has insurance outstanding of $79,000,000, an increase of more than $12,000,000 in the preceding year. The Penn Mutual is absolutely and purely a mutual company, and is conducted with a view to secure for the widows and families of its policy-holders the greatest possible security at the smallest possible cost. In 1891 it moved into its own magnificent building, one of the finest architectural specimens of office-buildings in the United States, and along with its two adjacent edifices, the Philadelphia *Record*, and the United-States Post-Office, forming one of the most noted architectural sights in the country.

Manufactures have nearly quadrupled since 1860, and in 1880 employed 31,332 establishments, with 387,072 operatives, receiving $134,055,904 yearly, and from $465,020,563 worth of material turning out yearly a product valued at $744,813,445 (or one seventh of the entire American output). In the six years, 1881-6 inclusive, there were 2,442 strikes in Pennsylvania, resulting in losses amounting to $18,000,000. Three fourths of the mechanics and miners are Americans. The capital invested is $474,510,993. Half of the glass-works of the United States are at Pittsburgh, where 60 factories employ 4,000 men and produce yearly $5,000,000 worth of flint, lime, window and green glass. Of the $80,000,000 worth of carpets and upholstery goods made in the United States, a large proportion comes from Philadelphia, which has the largest rug-mills in the world. In a single ward of the city more carpets are made than in all Great Britain. Leather is prepared by 333 tanneries, to the value of $24,000,000. The lumber business centres largely at Williamsport. A large plant of the American Wheel Company is operated at West Chester. The Friedensville Zinc Mines, near Allentown, have the largest stationary engine in the world, called "The President," and with its 16 boilers making 5,000 horse-power. It has the largest nut in the world, weighing 1,600 tons, and taking to tighten it 20 men, and a wrench 20 feet long. The immense iron-furnaces and rolling-mills of the Lehigh Valley are at Allentown, Catasauqua, Hokendauqua and elsewhere. Chester County has profitable iron-works at various points. The Phœnix Iron Company (of Phœnixville) made the dome of the U.-S. Capitol. It employs 1,500 men. The Baldwin Locomotive Works, at Philadelphia, are the largest in the world, and employ more than 3,000 men. They have made more than 10,000 locomotives. The Westinghouse Air-Brake Works and Electric Works are near Pittsburgh.

PHILADELPHIA: SPRECKELS' SUGAR REFINERY.

The Spreckels' Sugar Refinery in Philadelphia, one of the largest in this country, was built under contract, at a cost exceeding $5,000,000; and its construction has been considered one of the most notable mechanical and building achievements of an industrial character. Over 18,000,000 bricks and over 17,000 tons of iron were used. The whole structure is on made land, and is supported by about 10,000 40-foot piles. The walls are 34 inches thick on the lower floor. The entire construction of these lofty and substantial brick buildings was contracted for and superintended by Allen B. Rorke, who by the successful carrying out of this great enterprise won a national reputation as an eminent contractor and builder. He had previously earned a foremost position in his line in Philadelphia, where he had been the builder of and contractor for many structures of a notable character, including all of the later buildings of Girard College, the Hood, Bonbright & Co.'s Building, the passenger railway depot on Second and Third Streets, the cold-storage warehouse on Delaware Avenue, and many others. Mr. Rorke is not only a successful builder and contractor, but he has taken an active part in public life, for many years being the chairman of the Republican city committee. Although he has been in business only since 1878, the character of his transactions places him as the peer of any building contractor in Philadelphia.

The enormous development of American railways and immigration are partly attributable to the invention of steel rails, in themselves cheap and durable, and allowing much greater speed and weight of trains than iron rails. Wm. Kelley made pneumatic steel at the Cambria Iron Works before Sir Henry Bessemer discovered his process; and at the same place, Fritz invented the steel blooming-mill, which is now in use all over the iron world. The Cambria Iron Company, chartered in 1852, finished its first furnace at Johnstown, on the Conemaugh River, in 1855; and struggled through failures and fires until the tariff of 1861 enabled it to compete with England, and its business then developed wonderfully. The huge Bessemer plant was started in 1871, and has made 1,000 tons of steel ingots in a single day, including all grades from soft wire stock to spring stock. The Gautier Steel



JOHNSTOWN: THE CAMBRIA IRON WORKS.

Department makes barb wire, plough-shares, merchant steel and shafting, to the extent of 50,000 tons a year. In the Cambria Works 8,000 men are employed; and they have a fine library, a hospital, clubs and other benefits. Natural gas was introduced in 1886, coming in a pipe, 40 miles long, from the Westmoreland fields. The company's works extend along the river at Johnstown for two miles, and they have six blast-furnaces at Johnstown, and two at Hollidaysburg. They own 35 miles of railway tracks, with 24 locomotives and 1,500 cars; about 35,000 acres of land, with mines producing 800,000 tons of coal a year; 600 bee-hive coke-ovens in the Connellsville region; and large mines in Michigan, whence comes the ore for the Bessemer steel. The chief products are heavy and light steel rails, street and slot rails, blooms, billets, axles, channels, forgings, merchant and cold-rolled steel, link barbed wire, and other articles, using yearly 400,000 tons of iron ore, 120,000 tons of limestone, and 775,000 tons of coal. The yearly capacity is 300,000 tons of steel ingots, 350,000 tons of pig-metal, 200,000 tons of steel rails and 55,000 tons of other products, which are used in all parts of the country, in countless ways.

The Bethlehem Iron Company's Works, founded in 1857, occupy a domain a mile and a quarter long and a quarter of a mile wide, with 20 acres under cover, and 3,500 operatives. They are situated at South Bethlehem, on the Lehigh River, 87 miles from New York and 55 from Philadelphia, with several railroads connecting them with the coal and iron regions, and distributing their finished products. The plant has cost more than $10,000,000. The yearly output reaches 450,000 tons of steel rails, blooms, billets and other work. In 1887 the company began the erection of an ordnance and armor-plate department, long

SOUTH BETHLEHEM: THE BETHLEHEM IRON COMPANY'S WORKS.

needed to give the United States the most powerful guns, shafting and armor. This is not only the foremost establishment of the kind in the United States, but one of the most extensive and complete plants in the world for the production of gun-steel, armor-plate, shafting and other war material. The plant has been so far developed as to comprise a casting capacity of 100 tons, a fluid-compression plant, a steam-hammer of 125 tons falling weight, and two of the most powerful hydraulic presses ever constructed. The tempering plant has already treated forgings for 12-inch guns, and the machine-shops contain tools of a capacity to machine forgings of any character that have yet been demanded for ship or fort protection. The quality of its productions is unexcelled. The company has already supplied or has under contraction the shafting for the cruisers *San Francisco*, *Philadelphia*, *Newark*, *Cincinnati*, *Raleigh*, *New York*, No. 6, No. 11 and No. 12; the armed cruiser *Maine;* the coast-defense vessel *Monterey;* the battleships *Oregon*, *Indiana* and *Massachusetts;* the practice-vessel for Naval Academy; armor for the *Puritan*, *Texas*, *Maine*, *Monterey*, *Cincinnati*, *Raleigh*, *Amphitrite*, *Monadnock*, and *Terror;* and 70 complete sets of heavy gun-forgings, including those of 12-inch caliber. The company has contracted to supply 200 sets of gun-forgings, including calibers of 13-inch. This company, with a capacity for the manufacture of pig-iron, steel rails and merchant steel equal to the largest establishment of the kind in America, and having a plant for the manufacture of armor-plate, steel gun-forgings, and forgings of various kinds, of the largest size, the production of which has never been attained in this country before, may truly be considered a type of the highest degree of development reached in this line of business. It has not only laid the corner-stone, but is faithfully and rapidly raising the structure so vital to the defense of the wealth and population of this vast country, and the protection of its sea-ports and commerce.

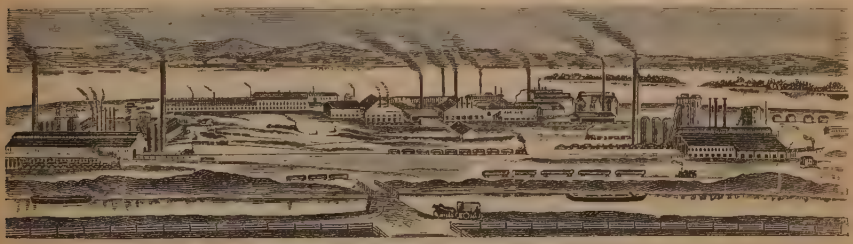
BESSEMER: THE EDGAR THOMSON STEEL WORKS AND BLAST-FURNACES.

It was less than a generation ago that the new process of making steel, known as the Bessemer process, was invented. Previous to that invention, so costly was the process of making steel, that a steel rail was a thing unheard of and unthought of by railroad managers. But with the cheapening of the manufacture of steel came this new and grand idea which has revolutionized railroad-building. At first our American railroads were obliged to import all their steel rails from Europe, but a protective tariff led to the establishment of the industry in our country. The largest manufactory of steel rails in the United States is the Edgar Thomson Steel Works and Blast-Furnaces, at Bessemer, 11 miles east of Pittsburgh. The works are owned and operated by the association, Carnegie Brothers & Co., Limited, with offices at Pittsburgh. The Pennsylvania, Baltimore & Ohio and Pittsburgh & Lake-Erie Railroads connect with these great works, and there is also ample wharfage on the Monongahela River, thus securing all the advantages for both rail and river transportation. The works occupy an area of 160 acres, 15 of which are covered with buildings. Something of their enormous productive power may be imagined, when it is known that the output each day of finished rails, weighing 65 pounds to the yard, is sufficient to lay twelve miles of single track. When the nine blast-furnaces are all in operation, the daily production of metals is over 2,000 tons; a recent average for one month showing 2,055 tons daily. The plant is designed and arranged specially for the manufacture of Bessemer steel, for conversion into rails, the molten iron being converted directly into steel, instead of cast into pigs and re-melted in cupolas. The number of employees engaged constantly is 3,500, representing a population of fully 10,000 people. The association, Carnegie Brothers & Co., Limited, is the

MUNHALL STATION : THE HOMESTEAD STEEL WORKS.

proprietor not only of the Edgar Thomson works, but also of the Duquesne Steel Works (formerly the Allegheny Bessemer Steel Company), the Youghiogheny Coke Works, the Larimer Coke Works and the Scotia Ore Mines. The Carnegie Homestead Steel Works have some of the largest rolls in the world for making armor-plate, and powerful 3,300-ton hydraulic shears for cutting steel plates. They are at Munhall, and cover 80 acres, employing 2,200 men, making nearly 400,000 tons of steel a year. Carnegie, Phipps & Co. are the proprietors. In 1891 they contracted with the United-States Government to make for its new battle-ships and cruisers 6,000 tons of nickel-steel armor, valued at $3,600,000.

The Pennsylvania Steel Company was the first corporation organized in America for making steel by the pneumatic process. The first blow was made in the Steelton works, May 5, 1867, the ingots being rolled by the Cambria Iron Company, and the rails delivered to the Pennsylvania Railroad Company. One or two iron-works had previously experimented with the new process and produced some metal, but these were the first steel rails ever manufactured in this country on an order in the regular course of business. In 1868 the company started a rail-mill, and in 1869 a 15-ton hammer. The works at Steelton have been increased from year to year by the erection of blast-furnaces, Bessemer and open-hearth plants, blooming, merchant and billet mills, forges and repair-shops, until now they cover 180 acres and employ 4,200 men, with a yearly capacity of 360,000 tons of steel ingots, which are rolled into heavy, light and street rails, open-hearth and Bessemer slabs, blooms, billets, forgings and merchant steel. The works also have a department for bridge-building and general construction, and one for making frogs, switches and signals. In 1883 the company, in partnership with the Bethlehem Iron Company, bought extensive ore lands in southeastern Cuba. It is now still further enlarging its field of work by a new and extensive plant at Sparrow's Point, Maryland. A ship-yard was put in operation in 1890.



STEELTON: THE PENNSYLVANIA STEEL COMPANY.

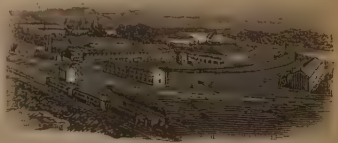
Pittsburgh makes almost everything in iron, from a tack or a watch-spring to a 20-ton cannon or a steamboat. It has the largest table-ware factory in the world, and the foremost Bessemer-steel plant in America. Rolling-mills and puddling-furnaces were established in 1819; and ten years later the city had nine rolling-mills and nine nail-factories. Foundries started here as early as 1806. Now, the iron and steel industries are of tremendous importance, value and diversity, and furnish metal supplies to a great part of the continent, in thousands of articles.

One of the most famous corporations of engineers and contractors in the world is the Keystone Bridge Company, of Pittsburgh, which manufactures steel, iron and combination bridges, viaducts, buildings and roofs, wrought-iron turn-tables, steel and iron eye-bars, buckled plates and other iron and steel articles. This active and successful concern was founded in 1863, and has a paid-in capital of $700,000. The branch-houses are at New York and Chicago. The Keystone Bridge Company has built some of the most important structures in its line in all America, including the wonderful Eads Bridge, at St. Louis; the Cincinnati Southern Railway Bridge, across the Ohio River, at Cincinnati; the beautiful and graceful bridges across the Missouri, at Plattsmouth, Blair and Kansas City; the Madison-Avenue Bridge, over the Harlem River, at New-York City; the bridge across the Ohio River at Henderson; the Arthur-Kill Bridge; bridges across the Mississippi at Minneapolis and St. Paul; the Susquehanna-River Bridge, at Havre de Grace; the Ohio Connecting Bridge, near Pittsburgh, whose channel-span, 525 feet long, was erected on pontoons, and floated into position, and many great train-sheds and other structures.

PITTSBURGH: KEYSTONE BRIDGE COMPANY.

Pittsburgh and the region around is, as all the world knows, noted for its immense and numerous furnaces and iron-working establishments. Indeed, above the city constantly hovers a cloud of dense smoke, which often obscures the rays of the sun. Many of these great establishments are of the most wonderful interest, covering, as they do, many acres of land and employing small armies of workmen. One of the most important of them is the Oliver Iron & Steel Co., whose plants at Pittsburgh and Allegheny City cover 35 acres and employ 3,500 workmen. The annual pay-roll approaches $2,000,000. The product of these works comprises structural iron and steel for buildings and bridges, rolled and riveted beams and channels, bolts of all kinds, and their great specialty of wagon hardware. Another specialty of manufacture is soft steel, to displace the better grades of iron. In this the company has been very successful, producing an article in steel that is like the best Norway iron, welding readily and standing the same physical tests as the higher and better grades of Swedish and Norway iron. This grade of steel is used entirely in the manufacture of carriage and other bolts, and railway-car coupling-links, and for similar purposes; and so great are the company's facilities for this production that the articles are sold at the same price at which those made from ordinary iron are sold. Much of the fuel used is natural gas, brought from the Belle-Vernon district, through the Oliver Iron & Steel Company's own pipe-line.

PITTSBURGH: OLIVER IRON & STEEL CO.



PITTSBURGH: OLIVER IRON & STEEL CO.

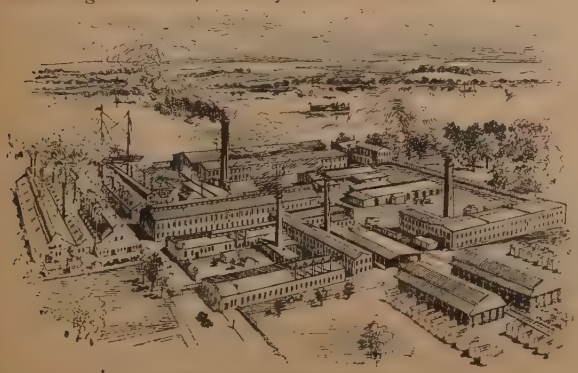
PITTSBURGH: OLIVER IRON & STEEL CO.

It was in 1840 and in 1841 that the energetic, far-seeing men of Pennsylvania began to cast looks of intelligence toward the copper regions of Lake Superior. It became known that in far-off Michigan were large deposits of copper, but the idea of mining it in what was then a wilderness seemed to many to be

visionary. At length, however, a party of Pittsburgh men resolved to embark in the enterprise, and in 1845 the Pittsburgh & Boston Mining Co. was formed. Its leading spirits were Dr. C. G. Hussey and Charles Avery, of the Pittsburgh firm of C. G. Hussey & Co. This venture proved profitable, and then it was decided by these gentlemen to start a copper rolling-mill in Pittsburgh, which should work the product of the Michigan mines. The smelting works of the Pittsburgh & Boston Mining Co. were already established here. In 1849 the mill was built and started up, and has been in successful operation since. Dr. Hussey continues the head of the firm, having survived his early partners, and associated with him some years ago Nicholas Veeder and Edward T. Dravo, for a long time identified with the business. To-day the concern is one of the largest in its line in the country. Its plant covers four acres on the banks of the Monongahela River. Employment is given to 90 persons. The product of the mill is rolled copper, of all sizes and shapes, copper vessels, copper bottoms, bars, sheets and other similar goods. The company has received numerous awards from expositions; and to-day is regarded as one of the leading houses of the country in planished copper and rolled copper of all forms and sizes. Besides copper in its various forms, C. G. Hussey & Co. are extensive makers of brass kettles.

PITTSBURGH: C. G. HUSSEY & CO.

It is not alone in heavy products of iron that Pennsylvania has gained a celebrity. As long ago as 1840 a demand arose for good American-made saws. There was no reason why they might not be produced in this country, especially in view of the great advances which were constantly being made in methods of manufacturing steel. In 1840 Henry Disston determined to see what could be done in this line of manufacture. Accordingly, he founded a plant for the production of saws, at Philadelphia, which was removed in 1884 to Tacony, a flourishing suburb of Philadelphia, on the Delaware River. Like all similar enterprises which have American pluck and energy behind them, it was a success beyond the expectations of the founder. To-day the saw-works of Henry Disston & Sons cover 38 acres and employ 1,900 persons. Saws of every kind and description are produced, from the most delicate key-hole saw to the huge circular saw, which will split an immense log from the Maine forest into boards almost in the twinkling of an eye. The firm produces large quantities of steel, and also tools for keeping saws in order, trowels, carpenters' squares, bevels, levels, files and other tools in every-day use. The product of the Disston works has a reputation co-extensive with the boundaries of America. The Disston saws have been awarded gold medals, not only at the Centennial Exposition of 1876, but at the Paris Exposition of 1878, the German Exposition of 1881, and the Australian Exposition of 1888. Among the inventions and special appliances controlled by the company are machinery and implements for grinding, hardening and tempering saws. The Disstons are everywhere recognized as the preëminent saw manufacturers of this country.



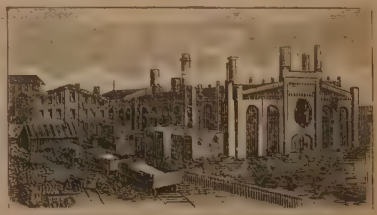
TACONY: HENRY DISSTON & SONS.

All machines for turning, planing or drilling, in which the cutting edge is guided

by mechanical means are called "machine tools." The term is broad, and includes all machines that work or shape metal, steam hammers, forging machines and the like. The manufacture of such tools has now become a distinct branch of industry. The Philadelphia house of Bancroft & Sellers, now William Sellers & Co., Incorporated, was the pioneer in this industry in America. The firm began operations in 1848. Their shops were small and inconvenient, and were located in that portion of the city known as Kensington. Their reputation increased rapidly. In 1853 they removed to new buildings erected on the square bounded by 16th and 17th Streets, Pennsylvania Avenue and Hamilton Street. The new location was then in the outskirts of the city, but the city has since grown up around it and for miles beyond. The neighborhood is historic with memories of Hamilton, of Abigail Adams, and of others whose names occur in the early history of our country. Large additions to their shops have been made since that time to meet their constantly increasing business. The Sellers establishment has now a world-wide reputation for the manufacture of machine tools, including power cranes of the greatest capacity, and railway turntables and other similar needs in the equipment of railroads. The highest encomiums of experts in this country and in Europe have been given to the product of the Sellers works. In reality, this concern has placed America far in advance of all other nations in the production of machine tools, in recognition of which William Sellers was honored at Paris with the Cross of the Legion of Honor. Many wonderful inventions have been made at these works, the fame of which extends to all civilized countries. William Sellers & Co., Incorporated, employ 650 men, and have an annual pay-roll of $400,000.

PHILADELPHIA: WILLIAM SELLERS & CO.

Among the great ironmasters of the last generation, the founders of the wonderful development of Pennsylvania as a metal-manufacturing State of the first magnitude, no name stood brighter than that of Garrison, which was borne by five brothers, each of whom made his mark in the iron industry of America. From this notable family came the establishment of the A. Garrison Foundry, the first to be started in Pittsburgh, and now for nearly a century in continuous and profitable operation. At one time the main business was stoves; now its chief product is the ponderous rolls used in rolling-mills, and whose use has revolutionized the art of metal-working. Some of the largest rolls ever made have been prepared at this foundry, together with a vast number which have done valuable service in rail-mills and other iron-works, and wherever tremendous or accurate iron rolls are utilized, the product of this foundry being regarded throughout this country as the highest standard. The president of the A. Garrison Foundry Co. is John A. Rickettson, a graduate of Harvard University, and one of Pittsburgh's well-known citizens.

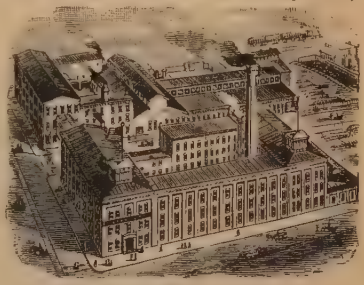


PITTSBURGH: A. GARRISON FOUNDRY CO.

One of the most notable manufacturing plants of Philadelphia is that of George V. Cresson, whose shafting works at the corner of 18th Street and Allegheny Avenue are by far the finest in their line in the whole country. The business was established in 1859 by the present proprietor.

PHILADELPHIA: GEORGE V. CRESSON'S WORKS.

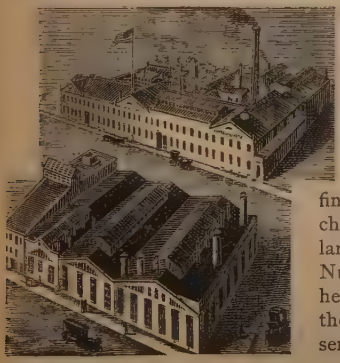
It comprises machine-shops, foundry and pattern and blacksmith shops, and employs about 250 men. The product of these admirably constructed works comprises shafting, couplings, hangers, pulleys, and power transmitting machinery of every description. Many of the latest and most important improvements in couplings, pulleys and other similar machinery have originated in these works, which comprise almost a little village by themselves. A specialty of the house is that of designiug and fitting out electric-light plants, and building complete power plants from original designs. This house is also known as the Philadelphia Shafting Works, the city being recognized as headquarters in this industry, to the fame of which the good work of George V. Cresson has added a considerable share.



PHILADELPHIA: ENTERPRISE MANUFACTURING CO.

There are many even in these later days who insist that a good cup of coffee cannot be made in the house which has no coffee-mill. So widespread is this belief that the Enterprise Manufacturing Company, of Philadelphia, foresaw a great industry in making a specialty of its manufacture, and their grinding mills, the "Enterprise," have become indispensable utensils in hundreds of thousands of homes. The "Enterprise" mills may also be used for spices, and are equally well adapted to the uses of farmers, grocers and others. But of all useful household articles designed to lessen the cares of the housewife and the much-abused and abusing domestic, the Enterprise meat-chopper deserves special mention. It cuts raw or cooked meat equally well, and may be easily adapted to chop coarse or fine. For rapidity, uniformity and nicety of chopping it is unexcelled. Mrs. Potts' cold handle sad irons, familiar to the great majority of housekeepers, are made by the same company. The factories rank among the best in the country, and the numerous processes of production of these and other specialties are gone through, by means of ingenious devices and simple arrangements that effect low cost, as well as insuring good goods. The Enterprise Manufacturing Company has been exceptionally successful, but the success has resulted from merit.

There are many men of the present day who well remember when all bolts, nuts, washers and kindred articles were made wholly by hand. When such articles made by machinery were first offered they met with little favor. They came gradually into use, however, but when cold-pressed nuts were offered there arose a clamor against them which was only allayed by a scientific test, which was decided in favor of the superiority of the cold-punched nut. The pioneers in these advances in iron manufacture were Hoopes & Townsend, of Philadelphia. Their works, probably the largest of the kind in the United States, are situated just off Broad Street, on Buttonwood Street, west of Thirteenth Street, and include nearly two entire blocks. Besides the Philadelphia plant, they operate a large plant at Wilmington (Del.) In the various shops about 750 hands find employment. A large amount of labor-saving machinery, of the most approved sort, is used, and thus a large product is turned out at a comparatively small cost. Nuts of every sort, bolts, wood screws and rivets are made here, and wherever these products have been exhibited they have carried off the highest honors. Hoopes & Townsend is another of the old and solid manufacturing concerns of Pennsylvania, having been founded in 1849, by the present senior partner of the firm, who is still active in its management.



PHILADELPHIA: HOOPES & TOWNSEND.

The foremost American house in the importing and sale of bright tin and roofing tin is the N. & G. Taylor Co., founded in the old Kensington district of Philadelphia in 1810. The early partners came from Connecticut, their forefathers having fought in the Revolutionary War. Wm. Taylor, one of the original founders, figured prominently in the War of 1812. The grandsons are the present members of the firm, which has passed through three generations of the same family. The business has grown enormously, until now the products are known everywhere, and its "Old Style" brand of roofing tin and other goods have received many medals and awards of merit, and the continual favor of patrons. The firm has always been fully alive to the requirements of its position, and has taken out patents for many improvements in tinners' tools and machines. They have also received American and English patents for improvements in the manufacture of tin-plates, and for certain kinds and sizes. The firm was prominent in 1871 in fostering the American Steamship Line, the only transatlantic line sailing under the American flag, and whose four original steamships are still running. They were among the prime movers of the great Centennial Exposition, and have always been closely allied to everything tending to the advancement of their city's greatness. N. & G. Taylor Co.'s special brand of roofing tin, the "Old Style," covers old Independence Hall, the birth-place of Liberty, and there is not a city in the Union that has not secured benefits in its use.

PHILADELPHIA:
N. & G. TAYLOR CO.

Pennsylvania, so famous for its iron and for its coal, finds one of its chief claims to distinction as an industrial State, in its numerous and varied iron-working establishments. Among these the plant of the Link-Belt Engineering Company is of notable distinction. This company takes its name from the unique and valuable "Ewart" detachable link-belt, a substitute in malleable iron for the various forms of flat belting in common use. Link-belting, though made of iron, is in many cases even lighter than the leather or rubber belting for which it is an equivalent in transmitting power, and has come to be recognized as a staple article, being extensively employed in the equipment of coal-mines, flour-mills, grain-elevators, paper-mills, sugar-refineries and other manufactories, both as a transmitter of power and for elevating and conveying. The Link-belt Company designs and furnishes machinery for the handling of any materials, either in bulk or in package, and for the transmission of power by means of link-belting, and all other approved machinery. Among its closely-allied concerns are the Link-Belt Machinery Company, of Chicago, and the Dodge Coal Storage Company, of Philadelphia, whose system and apparatus for the handling and storing of coal, have obtained high endorsements. The principal works of the company, and its main office, are at Nicetown, in the suburbs of Philadelphia. The Dodge system is illustrated in the New-York chapter. The immense plant in operation at Rondout well illustrates the most efficient and economical device ever invented for handling vast quantities of coal from vessels or cars, and properly storing it.

PHILADELPHIA (NICETOWN):
LINK-BELT ENGINEERING COMPANY.

Every traveller has marvelled at the intricate interlocking systems of signals which are so often seen at important railway junctions. Many of the most ingenious and efficient of these are the work of the Wharton Railroad Switch Company, of Philadelphia, which makes

JENKINTOWN: WHARTON RAILROAD SWITCH COMPANY.

a specialty of mechanical and electric interlocking and block signal systems. The works of this company are at Jenkintown, and the principal office is in Philadelphia. In addition to the signal systems, this company is a large manufacturer of heavy tools for the use of machinists and manufacturers. Not only this, but it is the manufacturer of the well-known Wootten locomotive, an extremely powerful contrivance, that has proven of very exceptional value in all up-grade or heavy locomotive work. The Wharton Company also make every variety of track supplies, and are well-known to the railway corporations all over the country, from the excellence of their goods, and the singular ingenuity of the inventions which they control.

PHILADELPHIA: THE J. G. BRILL COMPANY.

About twelve acres of land at 62d Street and Woodland Avenue, and at the junction of the P., W. & B. and the B. & O. lines of railway, in Philadelphia, are covered by the recently constructed car-works of the J. G. Brill Company. This corporation manufactures railway and tramway cars of almost every variety. Its specialties are tram-cars for horse, electric, or cable railways, and light suburban railway cars. Parties introducing new types of cars almost invariably are led to seek this company for the execution of their ideas. With this company originated the present type of electric motor trucks, so widely in use on electric railways; and also many mechanical devices for motor suspension and handling secondary batteries. New types of running gears and grip trucks for cable railways have also been originated by this company. It was the first corporation to build a sleeping-car for a horse-railway, and some of these cars are in use in South America, where the locomotive power is horseflesh, instead of steam, on the long journeys into the interior countries. About 600 persons are given employment at the Brill works, and the yearly pay-roll approximates $300 000. The J. G. Brill Company have the finest shops in this industry, and probably manufacture more tram-cars than any other concern in America. There is hardly a city in the country having street-railways that is without some of the Brill cars.

Not all of Philadelphia's most successful business-houses have been long established. Some of these planted within a comparatively few years have succeeded wonderfully, and are now widely known throughout the country. It was in 1874 that it became apparent in many towns and cities where no gas-works existed that some better method than the use of coal-oil was needed for the lighting of streets and squares. The outcome of this need was the Pennsylvania Globe Gas Light Company, the president of which is William L. Elkins. It supplies gas-lights for both street and house lighting, made from naphtha or gasoline, by means of patent gasoline burners and gas machines. The system of this company was the first departure from the old coal-oil method of lighting, and it has been universally successful. The advent of the new burners worked a revolution in the method of lighting many of the cities of the country. The company has now plants in more than 150 cities and towns. The products of the works, which are at 22, 24 and 26 South Fifteenth Street, Philadelphia, consists of gas-machines, street and car lamps, headlights and gasoline torches. The company also takes contracts for building gas and water works. Its street-lighting burners and apparatus and gas machines have been awarded premiums at several expositions. The Pennsylvania Globe Gas Light Company is the parent company of many local town-lighting organizations.

PHILADELPHIA: THE PENNSYLVANIA GLOBE GAS LIGHT COMPANY.

McKEESPORT: THE NATIONAL TUBE WORKS.

One of the colossal concerns which make Pennsylvania famous is the National Tube Works Company, which has its manufactory at McKeesport. This is the greatest wrought-iron pipe works in the world. The tubes which this company turns out comprise every variety of wrought-iron pipe, for steam, gas or water, boiler tubes, and pipes or tubes used for artesian, salt, oil or gas wells. It is claimed that half of all the wrought-iron pipe made in this country is the product of these works. The product of the McKeesport plant also includes rods and columns used in mines, grate-bars, hand-rails, telegraph poles, gas and air-brake cylinders, injectors, drill-rods and scores of other similar goods. The works have had a stupendous growth, the first building having been erected in 1872. The mill was started with only one furnace, but a second was required within three months; and others followed rapidly. The total acreage of the works is nearly 40, about 29 acres being under roof. The company was among the first to use natural gas for fuel in the manufacture of iron. The gas is the product of the company's own wells, and is brought through 20 miles of pipe to the works. The National Tube Works Company was originally an institution of Boston, where its treasurer's offices still remain. It has branch-houses at Boston, New York, Philadelphia, Pittsburgh, St. Louis and Chicago. While the stock capital is $2,500,000, the plants and properties of the company are valued at more than double that sum.

PITTSBURGH: OIL WELL SUPPLY CO.

Although lard, linseed and other manufactured oils are made at Pittsburgh, yet by the term "oil trade" is usually meant the business in crude or refined petroleum. From 1859 to 1884 there were 38,000 wells drilled in the oil-regions of Western Pennsylvania. The total cost of these wells was $170,000,000. During the 25 years following there was a total production of 10,000,000,000 gallons, or 244,000,000 barrels, or over 1,100 barrels for every hour for all the days and nights of a quarter of a century. This tremendous flowage has brought up trade in a number of germane industries, notably among which is the Oil Well Supply Company, Limited, of Pittsburgh, under the presidency of John Eaton, whose name is at the head of the great Eaton, Cole & Burnham Co. of Connecticut, the two corporations being very closely allied. In the oil-well supply the increase of business is well-nigh incalculable, and includes all the machinery, apparatus and appliances for boring, piping, barrelling, loading, refining and shipping oils in packages or in tank-cars and for conveying oil from the wells to storage-tanks and refineries. The Oil Well Supply Company, Limited, of Pittsburgh, which has a capital stock of $500,000, conducts branches at Oil City, Bradford, Washington, Butler,

Warren, North Clarendon, Eldred, all of Pennsylvania; at New-York City and Bolivar, New York; Lima, Van Wert, Cygnet and Marietta, of Ohio, forming in fact the foremost house in this industry.

PHILLIPSBURG: PHŒNIX GLASS CO.

Pennsylvania early gained the lead in the glass manufacture, and has kept it. Some of the most elegant table glass-ware is the product of her factories. The Phœnix Glass Company, has its headquarters a few miles from Pittsburgh, at its factories in Phillipsburg. The works cover two acres, and 700 persons are employed. The chief product is rich cut-glass table-ware, of the highest grade only, equal to the products of the best European factories. This ware is distributed throughout the country; and is exported in large quantities abroad. The pitchers, carafes and rose-bowls produced are marvels of skill and beauty. Other specialties are the beautiful decorated parlor, study and banquet lamps, which have become so popular among people of refinement. They are constantly adding new features in decoration, shapes and styles. The banquet and parlor lamps produced are remarkable for their exquisite beauty of form and coloring. The popular opal glass-ware, which is so much admired, is manufactured here, in many varieties. The product also includes fancy-colored glass-globes for gas and electric lights, both etched and plain. One of the sights of western Pennsylvania is the works of the Phœnix Glass Company, developed under the management of Andrew Howard, its president, assisted by A. H. Patterson, manager, who has charge of the large salesrooms, at 729 Broadway, New York, where a full line of wares is to be found.

WHITE MILLS: C. DORFLINGER & SONS.

One of the greatest glass manufactories of Pennsylvania is that of C. Dorflinger & Sons, a New-York firm, whose factory is at White Mills, in Wayne County. This is the foremost of all the exclusive cut-glass manufactories of the United States. Here fully 325 persons are given employment and the annual pay-roll approximates $125,000. Its specialties are blown crystal, plain and cut-glass, but it is specially famous among the connoisseurs and the glass-ware and jewelry and fine-art trade for its elegant richly cut table glassware, for a display of which an award was made at the Centennial Exposition in Philadelphia, in 1876. Dorflinger & Sons also make druggists' and perfumery glassware of high grade, including elaborate cut-glass cologne bottles. Still another specialty of manufacture is that of specimen jars for the use of colleges and museums. The present proprietors founded in 1852 this celebrated plant, which covers four acres, and produces much of the richest cut-glass in the world, fairly rivalling the choicest and costliest work of the great European factories.

A lamp chimney is a very little thing, of trifling value, and yet it is indispensable in the household. Especially is this true since the handsome parlor and study lamps became so popular. From Pittsburgh comes a large proportion of the millions of lamp chimneys and globes which are used in this country and in China, Japan, South America, Australia, and all parts of Europe. Geo. A. Macbeth & Co. are the proprietors of the immense Macbeth Lamp Chimney Works, covering a square and a half of the city, where these articles are manufactured. They gather their

PITTSBURGH: GEORGE A. MACBETH & CO.

materials from France, England, Peru, Chili and Turkey, and send them forth in the manufactured state. Every kind of lamp glasses, some of them very curious and beautiful, is made by this firm. By making a chimney known everywhere as the "Pearl Top," that is unbreakable in ordinary uses, they have saved the people of all countries a fabulous sum of money. It is the leading concern of its kind in this country, making the largest output in value in lamp chimneys.

BRISTOL: BLOOMSDALE SEED FARM, LANDRETH & SONS.

Philadelphia is noted for several large commercial houses which date their foundation previous to the year 1800. One of the most notable of these stable establishments is the firm of David Landreth & Sons, seed-growers, which had its rise in 1784. Indeed, this house is by many years the pioneer in America in the seed-growing industry. It is a real delight to visit their Bloomsdale Farm, at Bristol (Penn.), the main seat of their seed-growing operations, known throughout the Union as a model farm and establishment in respect to systematic agriculture. The farm is quite a pretty village in itself, with its 35 tenant-houses, seed storage houses, wagon sheds, seed barns, saw-mill, extensive stables, corn cribs and other buildings. All varieties of garden vegetable seeds and many farm seeds go out from this farm through the Bristol and Philadelphia shipping offices to all parts of the globe; and through David Landreth & Sons, American vegetables have been disseminated everywhere.

An enormous concern which has made Pennsylvania famous is the Gibsonton rye-whisky distillery, whose product is known everywhere. This great concern was established more than half a century ago. Its present proprietors are Moore & Sinnott, who succeeded the firm of John Gibson's Sons & Co. The original founder of the house was John Gibson, who was a thorough master of the business, and from small beginnings developed in a few years a large and growing industry. At the outset the founder established a high standard of excellence for his rye whiskies, and this standard has been maintained. The whiskies produced at these distilleries are used in the hospitals of Pennsylvania, and by the wholesale dealers throughout the United States, Europe, the West Indies, South America and China. The distilleries are at Gibsonton, on the Monongahela River, and constitute a series of large and substantially-built structures, fitted up in the most elaborate manner. In many ways it is the most perfectly equipped establishment of the kind in the country. There are 200 hands employed, and the capacity is 100 barrels a day. The offices and warehouses of Moore & Sinnott are at Philadelphia; and the firm has agencies in the chief American cities.

GIBSONTON: MOORE & SINNOTT.

PHILADELPHIA: JAMES MASON & CO.

An eminently successful industry of Philadelphia is the manufacture of shoe-blacking, by the James S. Mason Company. The house of James S. Mason was founded in 1832, and years ago established a national, indeed, a world-wide, reputation. There is no nation on the earth where shoes are worn in which Mason's blacking is not found. The best scientific ability has been employed in perfecting this seemingly simple product, and it is now the standard of the United-States Government. This establishment claims to be, and undoubtedly is, the largest of its kind in the world. Many millions of boxes of blacking are made and distributed annually

by this concern; and a large number of persons are employed in its manufacture. Its labels are printed in the English, Spanish and French languages; and it is interesting to see the many counterfeits that have been made, to steal away a part of the business due to this firm's high standing in its own special industry. The trade-mark of the dog seeing his likeness in the boot polished with Mason's blacking has become familiar everywhere.

PHILADELPHIA: S. S. WHITE DENTAL MANUFACTURING COMPANY.

The S. S. White Dental Manufacturing Company, the largest house of its class in the world, is the lineal successor to the business founded by the late S. S. White in 1844. The headquarters of the company are in its own fine marble-front building at Chestnut and Twelfth Streets, Philadelphia, with branches at New York, Boston, Chicago and Brooklyn. In age, in extent of works, in manufacturing capacity, in quantity, quality and variety of products, and in the importance of its specialties, this house is recognized throughout the world as the representative dental supply house. The industrial history of this country furnishes few parallels to its cosmopolitan reputation. The manufactures of the house have received 108 first premiums, including one from each of the great World's Expositions. The leading specialty of the house is porcelain teeth, but its manufactures include every conceivable article needed in dental practice, from the smallest hand implement to the costliest dental chair. Its specialties for the mouth, including everything required for dental hygiene, have an immense popular sale throughout the country. The *Dental Cosmos*, a monthly journal now in its thirty-third volume, published by the house, is acknowledged to be the leading dental journal of the world. This great house obtained and maintains its foremost position by the unquestioned superiority of its products, which throughout the habitable globe are to be found wherever dentistry is intelligently practiced.

Pittsburgh makes three fourths of the glass lamp-chimneys used in America and vast quantities of silvered glass and stained glass. The fine Baccarat and Val St. Lambert glass of Europe has been surpassed by the Pennsylvania product; and the English output is already far below the American, in point of quantity. Plate-glass was almost entirely imported, until within a few years, but now the immense works at Pittsburgh, Butler and other points make scores of millions of feet yearly, and have almost entirely stopped the importation, and lowered the price from $1.50 a square foot to about half that rate.

The kid and morocco leather industry flourishes to an enormous extent in Philadelphia, where there are many establishments, representing several millions of capital. Here are the tanneries of McNeely & Co., employing a capital of about $2,000,000, and occupying nearly an entire square; all of brick, and extending an eighth of a mile, with a floor-space of 228,000 feet, and equipped with modern machinery and appliances used in the various processes by which the raw, hair-covered skin is converted into dainty and pliable leather. The total product is about 12,000 skins daily. McNeely & Co. are not only the largest producers of kid in America, but are the largest in the world. They are the oldest existing house in the trade in Philadelphia, having been established in 1809. The business has been in the McNeely family for the better part of a century, and is now conducted with all the skill and aptitude given by long experience and inherited skill. These famous factories have branches in other cities, and transact a business of vast extent and value, extending all over the world. There are about 500 employees in the works at Philadelphia, and the

PHILADELPHIA: McNEELY & CO.

PHILADELPHIA (GRAY'S FERRY): HARRISON BROTHERS & CO.

ingenious apparatus and machines used in the processes of morocco-making are driven by a 300 horse-power engine.

A great and substantial industry of Philadelphia, which had its rise in the last century, is the paint and chemical manufactory of Harrison Bros. & Co., whose name is a household word among painters the country over. The house was founded in 1793, almost a century ago, by John Harrison, the grandfather of the members of the present firm. His enterprise won the admiration and encouragement of Jefferson, who foresaw the importance to the nation of the industries he founded. About the year 1840, the founder of the business was succeeded by John Harrison's Sons, and they in turn by Harrison Bros. & Co., made up of Thomas, M. Lieb, John, George L., and Thomas S. Harrison. The two first-named sold out their interest in 1877, and the firm now includes John Harrison, George L. Harrison, Jr., and Thomas S. Harrison. The quality and quantity of the goods, and the financial responsibility of the house, make this one of the establishments in which all Philadelphians take pride. The firm's works are located at Gray's Ferry, on the banks of the Schuylkill River, the plant covering 30 acres of ground. Over $1,000,000 dollars have been laid out on this manufactory, which is said to be the largest and best-equipped of its kind in the United States. Its products are well-known all over the Union, and are sold to the amount of about $6,000,000 a year.

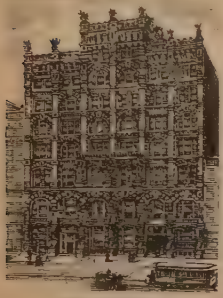
Dainty and admirable prints, delicate and attractive satines, and superb qualities of mourning goods, are the chief products of the Eddystone Manufacturing Company, whose picturesque mills line the bank of the Delaware River at Chester. This great concern was founded more than forty years ago, by William Simpson, whose name is also at the head of the eminent dry-goods commission house of Wm. Simpson, Sons & Co., the selling agents of the Eddystone Company. Its growth has been such that the plant now covers more than 150 acres of land with its various buildings; including besides the mills, numerous dwellings for workmen, and a hall and public-library building, containing a well-selected library free to all employees. About 1,000 hands are employed in these immense works, and the pay-roll aggregates yearly $500,000. The product of the Eddystone works is printed cotton fabrics, grading from ordinary calico to the finest printed satines, fully equal to the best French goods. This house was the pioneer in the successful use of aniline black and colors in cotton printing. It first introduced into this country, black and white, and grey mourning prints, and fine satines in figures and in solid black. In the manufacture of these goods the Simpson and Eddystone names stand pre-eminent.

CHESTER: EDDYSTONE MANUFACTURING CO.

A great industry, distinctively American, and to which foreign nations pay a well-deserved tribute, is the long established and extensive oil-cloth and

PHILADELPHIA: THOMAS POTTER, SONS & CO.

linoleum manufactory of Thomas Potter, Sons & Co. Incorporated. Its origin is in romance. Years before Independence was declared and announced by the sweet-toned bell upon Independence Hall, James Hamilton was Colonial Governor of Pennsylvania. His residence was at Bush Hill, a fine old manor-house, which was noted the country around; and according to Washington's diary (still in existence), many feasts were held there, at which the Father of his Country was a welcome guest. In later years, the old mansion changed from a residence, to become of equal note in the industrial world. Here in the early part of this century, Isaac Macauley established a small oil-cloth and carpet factory. He ran along with varying success until 1838, when Thomas Potter, whose name is at the head of the present company, succeeded to the business. From that day, the reputation of the house, for the excellence of its product, began to advance, until now they export their manufactured articles to all portions of the world. The plant covers 5½ acres, and includes 31 buildings, many of them being large stone and brick structures. About 400 men are employed, and the product is said to exceed that of any other similar manufactory in the world. The company is recognized as one of the most noteworthy in the United States.



PHILADELPHIA: WOOD, BROWN & CO.

In and around Philadelphia are a few houses that date their beginning more than a century ago. Among these is the business house of Wood, Brown & Co., which lays claim to being the oldest wholesale dry-goods house in the United States. It has, as evidence of its age, the original account-books, kept in pounds, shillings and pence, of Wood & Bacon, an old-fashioned country dry-goods store at Greenwich, Cumberland County, N. J. These books run back to 1760. The son of this Mr. Wood was the late Richard D. Wood, who came to Philadelphia and established the wholesale dry-goods house of Wood, Abbott & Wood, in 1823. Since then the old business has been continued mainly by Wood & Bacon; there having been three firms of Wood, Bacon & Co., in three generations in this century, the last being succeeded in 1886 by the house of Wood, Brown & Co., recognized as one of the largest and richest in the wholesale dry-goods business. The late Richard D. Wood was remarkable for his executive ability, and for his mastery of several distinct lines of business. He was the head of R. D. Wood & Co., noticed elsewhere as the foremost cast-iron pipe founders of this country; and of the Millville Manufacturing Company, owners of extensive cotton-mills; and of R. D. Wood & Sons, a leading dry-goods commission house; and his associates, by reason of their absolutely essential aid at important times, may also be called the founders of the wonderful Cambria Iron Works, at Johnstown.

The number of hats manufactured by a single firm in Philadelphia is simply enormous. From the factory of John B. Stetson & Co. are turned out yearly fully 600,000 of the finest fur, felt, soft and stiff hats. An enormous number of hare, coney, beaver and nutria skins are obtained from South America, Great Britain, Germany, France, Russia and the Northwestern portions of our own country, from which is cut the fur used in the manufacture of this production; and employment is given to more than a thousand persons. The yearly pay-roll approximates half a million of dollars. An entire city block, bounded by Fourth and Cadwalader Streets and Montgomery Avenue is occupied by the brick buildings of these extensive works. Beside this block, an additional building, 175 by 48 feet and seven stories high, at the corner of Cadwalader Street and Montgomery Avenue is occupied by John B. Stetson & Co., and connected with the main building by a bridge. Nearly all of the

PHILADELPHIA: JOHN B. STETSON & CO.

PHILADELPHIA: HASELTINE'S ART-GALLERIES.

International expositions of modern times have awarded medals or other premiums for the product of this great factory. Among these, at the Paris Exposition of 1889 the grand prize, highest award, fell to Mr. Stetson. The industry was established just at the close of the late war, and that it has reached its present proportions is due to the industry, ability and prudent management of its proprietor. Mr. Stetson also has found time and money to devote to religious and educational work; as is evidenced by the religious association which has quarters adjoining the factory in Philadelphia; and the John B. Stetson University at DeLand, Florida.

No visitor to Philadelphia, especially no lover of art, fails to visit the famous Haseltine Art Galleries, incomparably the largest, grandest and costliest for the art business in the United States. They are located at 1416 and 1418 Chestnut Street; and occupy all but the lower floors of a strikingly attractive structure of eight stories, known as the Haseltine building. For the proper display of works of art there are six large galleries, with skylights, and other rooms, side-lighted, forming altogether the finest art salesrooms certainly in the United States, and hardly approached by any in Europe. Here is gathered a wonderful variety of paintings, statuary, etchings, engravings, autotypes and photographs, drawn from all portions of Europe. Exhibitions of the works of noted artists are held in these galleries, which are often thronged with the beauty, fashion and intelligence of the city. Here can always be seen for sale the largest stock of works of the greatest modern artists. Charles F. Haseltine, the proprietor, was the first to introduce into this country the famous Braun's autotypes, as well as the works of numerous painters who afterwards achieved great reputation. The galleries are usually free.

Of remarkable interest to every visitor to Philadelphia is the great trade-mart of John Wanamaker. This is the largest retail establishment in the world, and its fame was world-wide long before its founder and owner became the Postmaster-General of the United States. Nearly 15 acres of floor-space are occupied by this great store, and over 4,000 persons are employed. The business is divided into more than 50 departments, and there is scarcely any article in ordinary use which cannot be obtained here. The departments of this house are not merely called such, they are in fact just so many complete establishments. The goods are remarkable for their high grade, this being in no sense a mart for old stocks, but everything being as bright and new as the markets of the world can supply. The characteristic feature of the house has been its uniform and liberal treatment of all, regardless of wealth or station, always serving the best goods at the best terms which its enormous facilities could command. From the first its rule has been, "Be satisfied with your purchase, or have your money back." The system of the establishment is wonderful, more than six miles of pneumatic tubes being employed in connection with the cashiers' desks, and for other purposes. Nearly 1,300 electric lights are in use; and 150 horses are constantly employed in the delivery of goods. The store also does an extensive mail trade, whereby people in all States and countries avail themselves of this firm's opportunities. The *Book News*, published by Wanamaker, is a monthly literary periodical. The yearly business of John Wanamaker in this vast emporium reaches many million dollars.

PHILADELPHIA: JOHN WANAMAKER.

HISTORY.

The aborigines were the Narragansetts, formerly a powerful tribe, and even as late as 1630 5,000 valiant warriors. At that time, their chiefs were Canonicus and his nephew, Miantonomi. In Bristol County lived many Wampanoags, under the great Sachem Massasoit, whose domain reached across to Massachusetts Bay.

The founder of Rhode Island was Roger Williams, a young nonconformist minister from England, who migrated to Salem in 1631, and suffered banishment thence for "his new and dangerous opinions against the authority of magistrates." The Puritan leaders ordered that he should be carried back to England, but he escaped to the wilderness, and dwelt there many weeks with the friendly Indians. In June, 1636, with five companions, he descended the Seekonk River in a canoe, and found an eligible site on the Moshassuck River, which he named *Providence*, as a memorial of "God's merciful providence to him in his distress." He received a grant of the land from Canonicus, in acknowledgment of his mediation in a feud between that potentate and Massasoit.

The island of Aquidneck was settled by Antinomian exiles from Massachusetts, at Portsmouth (1638) and Newport (1639); and in 1642 Samuel Gorton went into the wilderness and founded Shawomet (Warwick). The unification of Providence, Portsmouth and Newport took place in 1643, under the title of "Providence Plantations in the Narragansett Bay in New England." The Rhode-Island colonies sent Roger Williams as an ambassador to England, where he partly supported himself by reading to John Milton, and finally secured a wise colonial charter from the Earl of Warwick. The first General Assembly adopted the Maritime Code of Oleron, and passed a statute "concerning Archerie." The first church was organized at Providence, in 1638; the first public

STATISTICS.

Settled at	Providence.
Settled in	1636
Founded by	Englishmen.
One of the Original 13 States.	
Population, in 1860,	174,620
In 1870,	217,353
In 1880,	276,531
White,	269,939
Colored,	6,592
American-born,	202,538
Foreign-born,	73,993
Males,	133,030
Females,	143,501
In 1890 (U.-S. census),	345,506
Population to the square mile,	254.9
Voting Population,	76,898
Vote for Harrison (1888),	21,968
Vote for Cleveland (1888),	17,530
Net State Debt,	None.
Assessed Valuation of Property (1890),	$322,000,000
Area (square miles),	1,250
U. S. Representatives,	2
Militia (Disciplined),	1,327
Counties,	5
Post-offices,	112
Railroads (miles),	214
Vessels,	246
Tonnage,	36,727
Manufactures (yearly),	$104,164,621
Operatives,	67,878
Yearly Wages,	$21,355,619
Farm Land (in acres),	514,813
Farm-Land Values,	$28,882,079
Farm Products (yearly)	$3,670,135
Public Schools, Average Daily Attendance,	33,803
Newspapers,	66
Latitude,	41° 9′ to 42° 3′ N.
Longitude,	71° 0′ to 71° 53′ W.
Temperature,	−9° to 92°
Mean Temperature,	Providence 48°

TEN CHIEF PLACES AND THEIR POPULATIONS. (CENSUS OF 1890.)

Providence,	132,146
Pawtucket,	27,633
Woonsocket,	20,830
Lincoln,	20,355
Newport,	19,457
Warwick,	17,761
Johnston,	9,778
East Providence,	8,422
Cranston,	8,009
Cumberland,	8,090

NEWPORT: OLD STONE MILL.

school, at Newport, in 1640; the first postal route to Boston, in 1693; and the first census (showing 7,181 persons), in 1708. The first newspaper, *The Rhode-Island Gazette*, appeared at Newport in 1732. In 1663, a comprehensive charter was received from Charles II.; and for over a century the Province contended with the Crown for the rights thus bestowed. This was the last of the Thirteen Colonies to accede to the Constitution of the United States, preferring its Royal Charter, which indeed remained as authority until 1843.

During King Philip's War, in 1675, 1,000 New-England soldiers stormed the great tribal fortress of the Narragansetts, seven miles from Narragansett Pier, and in a bitter winter's-day battle slew 300 Indians, and took 600 prisoners, losing 80 men killed and 150 wounded. The next year the savages burned Providence, but spared the life of the venerable Roger Williams, then nearly eighty years old, and serving as a captain of militia. After many a desperate fight, the native power melted away, and King Philip was slain, near Mount Hope.

When the American Revolution broke out, Rhode Island took up arms with patriotic enthusiasm. The *St. John* was fired upon by Fort George; the *Maidstone's* boat was burnt on Newport Common; the people fought the *Senegal's* officers in the streets; and Providence volunteers burnt the *Gaspee*. During the siege of Boston 1,000 Rhode-Island troops encamped at Jamaica Plain. The British naval officers bombarded Bristol and Warren; ravaged Prudence Island and Point Judith; and in other ways devastated the brave little State. Newport remained in the hands of the British from 1776 to 1779, and Sir Richard Pigott and his 5,000 troops drove Sullivan's New-England militia from its vicinity, after a hard-fought battle. Finally, ruined Newport was evacuated, and the French fleet and army of 6,000 men under Ternay and Rochambeau sailed into the harbor. Narragansett Bay was the scene of daring naval encounters, and the many privateers sent forth from its waters did noble service for the cause of American liberty. The Commonwealth had at one time more than 3,000 disciplined troops in the Continental Line.

BLOCK ISLAND.

In the new-formed State, suffrage was regarded not as a right, but as a privilege, dependent on conditions, such as a freehold of $134. The government reposed in the hands of a few land-holders, and town-representation finally became singularly inequitable. In 1842 Thomas Wilson Dorr claimed the governorship, in spite of the fact that Samuel Ward King was the regularly elected and active chief magistrate. Then ensued the so-called Dorr Rebellion, in which the adherents of Dorr fortified Acote's Hill, at Chepachet. But on the advance of the State troops, the force assembled here melted away, with the unprecedented loss (as a local wit said) of killed, none; wounded, none; missing, the entire army. The State authorities, by this uprising made aware of the popular uneasiness, drew up a new Constitution, which supplanted the old charter of Charles II., in 1843.

PAWTUCKET: THE OLD SLATER MILL.

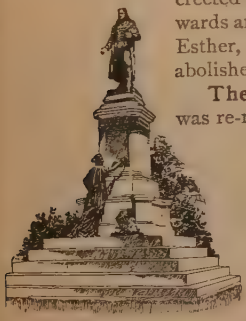
The Rhode-Island contingent in the late civil war numbered 23,236 men, out of a population of 175,000. Of this force, 255 were killed, 1,265 died of wounds or disease, and 1,249 were wounded in battle. These fallen heroes are commemorated by elaborate monuments at Providence and elsewhere.

The local historical relics include the Indian fortresses; the State Houses; Trinity Church, at Newport, dating from 1726; the Newport synagogue, the first in America (1762); the ivy-clad

Old Stone Mill, at Newport, long attributed to the eleventh-century Norsemen (see Longfellow's *The Skeleton in Armor*); the Newport City Hall, built in 1760, by one of the architects of Blenheim Palace; the block-house (built in 1641), and Episcopal Church (built in 1707), at Wickford; the French Memorial, over the graves of the French soldiers at Providence; and many legend-haunted colonial houses in Warren and Bristol, and in the Narragansett Country. At Providence we may see Slate Rock, where Roger Williams was saluted by the Indians with, "What Cheer, Netop;" the Friends' Meeting-House, dating from 1727; the First Baptist Church, built in 1775; and the quaint old houses of Tillinghast (1710), Hopkins (1750), Whipple (1659) and Browne (1786). The Roger-Williams Park of Providence is a part of the domain granted by Canonicus to Roger Williams, and bequeathed to the city by his descendant in the sixth generation. The municipality accepted this noble gift, in 1872, and it is now a beautiful region of lawns and groves and drives, still enshrining the venerable colonial house of the Williams family, and adorned by a fine bronze statue of Roger Williams, with History standing below.

NEWPORT: PERRY MONUMENT.

A few half-breed Narragansett Indians remain on Indian lands in Charlestown, where the State has carefully preserved their royal burying-ground, and Fort Ninigret, a fortress erected by the Dutch before the English came to New England, and afterwards an aboriginal stronghold. Here also is Coronation Rock, where Esther, the last Narragansett queen, was crowned, in 1770. The State abolished the tribe in 1880.



PROVIDENCE: ROGER-WILLIAMS MONUMENT.

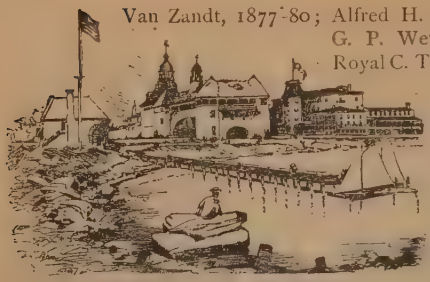
The Name of the State was fixed when the island of Aquidneck was re-named in memory of the heroic defence of the Isle of Rhodes by the Knights of St. John. The Mediterranean origin of the name seems to be certified by the Colonial act of 1644: "The island of the Aquethneck shall be called the Isle of Rhodes." The pet name of the Commonwealth is LITTLE RHODY, an epithet indicating its limited area.

The State Arms were adopted in 1647, and consist of a golden anchor, emblazoned on a blue shield or flag. Various accessories of sky, waves, and ships, and a fouled rope on the anchor are fancies of engravers. The gold is an heraldic sign of sovereignty; and refers to the fact that Rhode Island (as well as North Carolina) remained for several years outside of the Union, as an independent and sovereign State. The blue represents the sea, in allusion to the local maritime activities. The motto is HOPE, an idea also suggested by the anchor.

The Governors of Rhode Island since the breaking out of the Revolutionary War have been: Nicholas Cooke, 1775–8; Wm. Greene, 1778–86; John Collins, 1786–90; Arthur Fenner, 1790–1805; I. Wilbour (acting), 1806–7; James Fenner, 1807–11; Wm. Jones, 1811–17; N. R. Knight, 1817–21; Wm. C. Gibbs, 1821–4; J. Fenner, 1824–31; L. H. Arnold, 1831–3; J. B. Francis, 1833–8; Wm. Sprague, 1838–9; Samuel Ward King, 1840–3; James Fenner, 1843–5; Charles Jackson, 1845–6; Byron Diman, 1846–7; Elisha Harris, 1847–9; Henry B. Anthony, 1849–51; Philip Allen, 1851–3; Francis M. Dimond, 1853–4; Wm. Warner Hoppin, 1854-7; Elisha Dyer, 1857-9; Thomas G. Turner, 1859-60; Wm. Sprague, 1860-3; Wm. C. Cozzens (acting), 1863; J. Y. Smith, 1863–6; Ambrose E. Burnside, 1866–9; Seth Padelford, 1869–73; Henry Howard, 1873–5; Henry Lippitt, 1875–7; Charles C.

WARREN: GEORGE HAIL LIBRARY.

Van Zandt, 1877–80; Alfred H. Littlefield, 1880–3; A. O. Bourn, 1883–5; G. P. Wetmore, 1885–7; John W. Davis, 1887–9; Royal C. Taft, 1889; Herbert W. Ladd, 1889–90; J. W. Davis, 1890–1; and H. W. Ladd, 1891–2.


NARRAGANSETT PIER: THE CASINO.

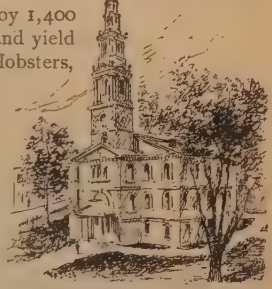
Descriptive.—The State is the smallest in the Republic; and Texas has 240 times its area. Rhode Island finds its main feature in Narragansett Bay, a beautiful and navigable arm of the sea, thirty miles long, covering 130 square miles, and branching into ten harbors. Among its 15 islands are Conanicut, Prudence, Patience, Hope and Despair. The island of Rhode Island is a rich and beautiful domain, 15 miles long, with 22,000 inhabitants. It has been happily called "The Eden of America" and "The Isle of Peace;" and the bold cliffs and magnificent beaches of its coast enclose ferny valleys, odorous with wild roses, lily-whitened ponds and sea-blown orchards. Here the traveller still may see the lone rock where dwells Ida Lewis, the Grace Darling of the Western Continent; the beach where Washington Allston used to walk and meditate; the farm-house whence the British general, Prescott, was haled into captivity, in 1777; the Old Stone Mill; and the ancient mansion of Dean Berkeley, who wrote the poem closing with the noble prophecy: "Westward the course of empire takes its way." Conanicut, seven miles long, is chiefly known as a summer-resort, with many pretty villas and hotels, and a ferry to Newport. Block Island, 30 miles southwest of Newport, is a sea-surrounded town eight by three miles in area, wind-shorn and wood-forsaken, and inhabited by fishermen and shepherds. It is also a famous summer-resort, with many large hotels, and daily steamboats to Newport, Providence and New London. Its Indian name was *Manisees*. Bristol and Warren are ancient bay ports, rich with historical reminiscences and legends of the Norsemen and Indians. Along the rapid rivers, Blackstone, Pawtuxet, Woonasquatucket and others extend scores of factory-villages, availing themselves of the water-powers. Around Narragansett Bay, with its bold bluffs and headlands, islands, coves and beaches, there are many famous summer-resorts, Wickford, the Buttonwoods, Oakland Beach, and Sakonnet Point, with Newport and Conanicut. At the extreme southwest, Watch-Hill Point projects into the sea, bearing a dozen summer-hotels, and an ancient light-house. Excursion steamboats continually ply along the bay, during the joyous summers, bearing thousands of merry-makers. One of the most cherished institutions of Yankee-land is the Rhode-Island clam-bake; and along the Providence River there are numerous popular resorts, like Rocky Point, Squantum and Silver Spring, where this succulent shell-fish is served up, with sweet corn and other adjuncts. The clam-bake is made by preparing a rough floor of stones; heating it to a high temperature by a wood fire built on top; sweeping away the embers; covering the stones with sea-weed, with a heap of clams thereon; and then another layer of sea-weed, and over all a sheet of thick canvas to keep in the steam.

NEWPORT: THE CASINO.

PROVIDENCE: BURNSIDE STATUE.

Newport, the quaint old colonial town, has been enlarged by a beautiful park-like region of villas and gardens reaching across to the sea, and traversed by the famous Bellevue Avenue, and other broad boulevards, lined with the costly

cottages and ornamental grounds of the Vanderbilts, Goelets, Astors, Belmonts, Bennetts, Mortons, Agassiz and other millionaire families. The large hotels have vanished, all but one; and Newport is distinct in housing its guests in pleasant lodgings and cottages, with domestic privacy, and freedom from noisy caravansary life. The fame of this lovely summer-city is world-wide, and has been growing for sixty years. The Casino is a quaint Old-English structure, with a theatre, tennis-court and other adjuncts, the property of an aristocratic club of summer-residents. There is a similar Casino at Narragansett Pier, where the sea beats along the rocky shores and sandy strand of the famous old Narragansett country. The Narragansett-Bay fisheries employ 1,400 men, 80 vessels, and 1,200 boats, and $700,000 in capital, and yield yearly 6,000,000 pounds of food-fish, 450,000 pounds of lobsters, 300,000 bushels of oysters, and 120,000 bushels of clams, quahaugs and scallops. The oyster-beds belong to the State, and are leased; some of them, together with the clam and quahaug beds, being reserved by law as free to the people.


PROVIDENCE: FIRST BAPTIST CHURCH.

The Pawcatuck River is navigable to Westerly, and the Seekonk to Pawtucket. Providence River is a deep estuary reaching for eight miles, from the Seekonk River to Nayatt Point, and affording 40,000 acres of safe anchorage ground. The Government engineers have skilfully deepened this harbor from four feet to 25 feet.

The Climate is the blandest and most equable in New England. It is supposed that a branch of the Gulf Stream flows into Narragansett Bay, causing a warmth and moisture unusual in this latitude. The mean temperature is about 48°, and the rainfall 40⅓ inches.

NEWPORT: THE CLIFF WALK.

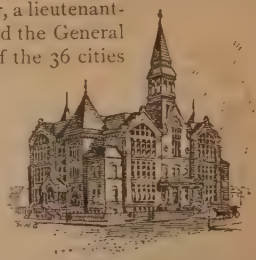
The Geology of Rhode Island concerns itself with Eozoic Montalban gneiss, west of the bay, and coal-bearing strata under and east of the bay. Nearly 800,000 tons of an exceedingly hard coal have been taken out, mining having begun in 1808. The long-deserted shafts at Portsmouth were pumped out and reopened in 1889. The coal is almost pure carbon, and requires an intense draught. It burns a long time, and with a strong heat. At Westerly there are quarries of fine granite, white, red, blue, and mottled, a beautiful and durable building material. This is one of the strongest granites known, and sustains a pressure of 19,000 pounds to the square inch. Among other minerals are limestone, sandstone, serpentine, marble, and brick-clay.

Agriculture yields a yearly product of $8,000,000, the property in farms and buildings being valued at $40,000,000. On the island of Rhode Island the land is rich, and the other islands and the towns east of the bay have very fertile soil. One fourth of the State is in

NEWPORT AND ITS HARBOR.

forests, mostly oak, walnut and chestnut, with pine-plains and cedar-swamps in the south, sinking into extensive salt-marshes, bordered by lonely sand-dunes and untrodden beaches.

The Government consists of a governor, with no veto power, a lieutenant-governor, secretary of State, attorney-general and treasurer; and the General Assembly, composed of a Senate, with one senator from each of the 36 cities and towns, and a House of Representatives. There is a Supreme Court, with subordinate county courts. The General Assembly meets at Newport in May, for a short term, and then adjourns to meet at Providence in January for the main session. The State House at Providence dates from 1759, and is a plain brick building, with a belfry. Here are the State Library, the legislative halls, many portraits of local notables, Stuart's portrait of Washington, the Colonial Charter of 1663, and the Revolutionary standards and Secession-War battle-flags and guidons of the State troops. The State House at Newport is a venerable building of 1738, standing on Washington Square. The results of the State elections are proclaimed from its balcony. Energetic efforts are being made to erect a fine Capitol at Providence.

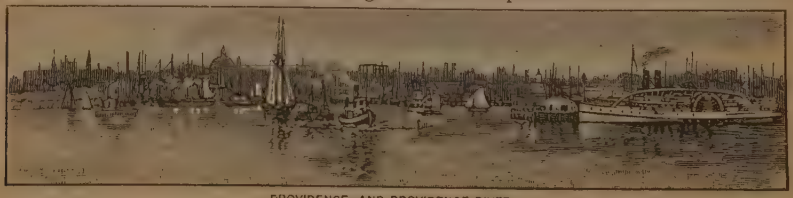


PROVIDENCE: HIGH SCHOOL.

The Militia comprises one brigade, consisting of two regiments of infantry of eight companies each; two separate companies of infantry (colored); one battalion of cavalry companies; a light battery of four guns; a machine-gun battery; and the Newport Artillery; the United Train of Artillery of Providence; the Bristol Train of Artillery; and Kentish Guards, of East Greenwich. The State owns armories at Woonsocket, Pawtucket, East Greenwich and Providence. The brigade for the last eleven years has held a yearly encampment at Oakland Beach, ten miles from Providence. The State owns 22 pieces of artillery (including Gatlings). The Providence Marine Corps of Artillery, chartered in 1801, originally included only sea-captains and mariners, and was the first volunteer light battery in the United States. The eight admirable and efficient batteries sent out by Rhode Island to the Secession War learned the science of artillery from this famous school of gunners. In 1889 the State organized a naval battalion, including Naval Reserve Artillery and Naval Reserve Torpedo companies. The Soldiers' Home is at Bristol.

WESTERLY, AND THE PAWCATUCK RIVER.

The Charities and Corrections are in Cranston, seven miles from Providence, on the State Farm of 530 acres. The State Prison, built of local stone, in 1874–8, has 112 convicts; and on the same unhappy domain are the State Work-House and House of Correction, with 220 inmates; the State Asylum for the Incurable Insane, 530 patients; the State Almshouse, 230; the Providence-County Jail, 290; and the State Reform School, 200. The State Home and School for Neglected and Dependent Children was founded in



PROVIDENCE, AND PROVIDENCE RIVER.

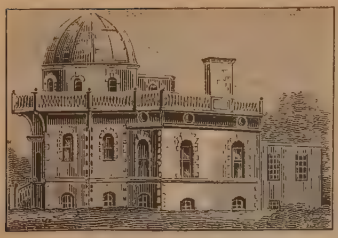
1885, at Providence, and has 120 little ones in charge. The State School for the Deaf has four teachers and 30 pupils. The Butler Hospital for the Insane is a handsome brick building in a park of 150 acres, on the Seekonk River, in Providence. It was opened in 1847, and is a private institution, accommodating 180 persons. The Rhode-Island Hospital, also in Providence, is a magnificent pile of buildings, erected in 1867–8, at a cost of $500,000, contributed by private generosity. The Dexter Asylum is in Providence.

The National Works include the torpedo-school, on Goat Island, where the explosives are made and stored, and great numbers of torpedoes are kept, with various electrical instruments. The torpedo-museum is also used as an instruction room, where officers are taught how to handle torpedoes. Fort Adams (built in 1824–39) is one of the three chief fortresses of the United States, guarding Newport Harbor with 500 cannon, and continually garrisoned by regular troops. In the Narragansett waters there are two light-ships and 25 light-houses; and six life-saving stations. The Beaver-Tail light-house, on Conanicut, is the oldest on the American coast; and the Point-Judith light is one of the most important for mariners. There are several abandoned forts around the bay, dating from the days of olden wars. The training-school for naval apprentices is on the line-of-battle ship *New Hampshire*, anchored off Coaster's-Harbor Island (near Newport), where there are several buildings. Here 400 American lads are taught in seamanship.

PROVIDENCE: BROWN UNIVERSITY.

Education, though for a long period carefully encouraged by the fathers of the State, and aided by the enactments of 1828 and 1839, and especially fortified by the school law of 1845, and the recent law compelling the sending of children to school, has been hampered by the large foreign population and the irregular attendance in manufacturing villages. Ten per cent. of the people are illiterate, a higher rate than in any other Northern State. The revenue for current public-school expenses is $700,000, and about $200,000 in addition to this sum is ordinarily expended. There are twelve high-schools, with 1,500 pupils. The State Normal School at Providence has about 150 students.

Brown University, founded as Rhode-Island College, at Warren, in 1765, and later removed to Providence, has a group of interesting buildings, on an elm-shaded campus of 15 acres, crowning Prospect Hill. There are 27 instructors, and 270 students (200 from Rhode Island). The library has 70,000 volumes; and the museum is large and well arranged. University Hall, a copy of Nassau Hall at Princeton, dates from 1770, and was used as a barrack and hospital for the American and French soldiery in the Revolution. Among the other buildings are the Sayles Memorial Hall, of red Westerly granite, in Romanesque



PROVIDENCE: LADD OBSERVATORY.

architecture, erected in 1880; Manning Hall, a Doric temple of stone, dating from 1828; and the beautiful Venetian-Gothic library, erected in 1878 with a bequest from John Carter Brown. Since 1804 the University has borne the name of Hon. Nicholas Brown, a generous benefactor. It is Baptist in tendency. Brown University has been growing steadily in power, influence and value. Recently it has made a substantial advance by reason of a munificent gift from Herbert W. Ladd, president of a prominent dry-goods company in Providence, which will furnish the University with adequate means for thorough instruction and important research in astronomy, and place it in line in this respect with other colleges. It was during the donor's term as Governor of the State, at the annual Commencement dinner in 1889, that the friends of the University were gratified by an announcement that Gov. Ladd proposed to build, equip and present to the University an observatory. Work was begun immediately. The Observatory is a handsome structure, appointed and equipped with the highest type of scientific instruments; and from its site upon Tin-Top Hill commands a wide landscape and unbroken sky fron horizon to zenith. The building is one story in height, over an ample basement; and in front is an octagonal tower, surmounted by the revolving dome containing the big equatorial, which is mounted on an immense brick pier, on the face of which is a bronze plate bearing the donor's name. Gov. Ladd, the founder of this splendid scientific department, is widely known as one of Rhode Island's most successful business men.

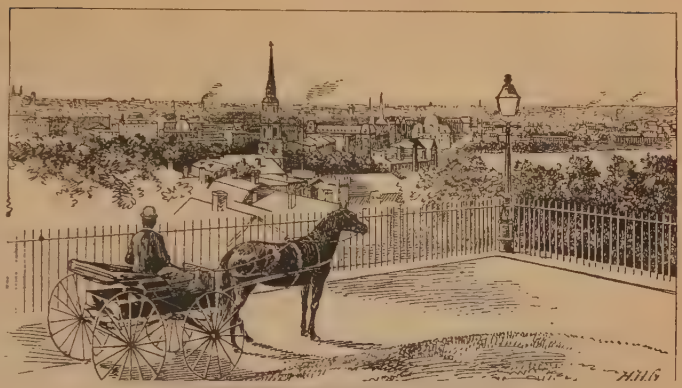
The Friends' Boarding School, founded more than a century ago, stands on a hill in Providence, 182 feet above the tide, and looking out over nearly all Rhode Island and a broad area of Massachusetts, and down the fair blue vista of Narragansett Bay. The vener-

PROVIDENCE: THE FRIENDS' SCHOOL.

able trees of the 50-acre park overarch rich green lawns and spacious buildings, some of them nearly three quarters of a century old, but provided with all the modern comforts and conveniences. The school was founded by Moses Brown, in 1784, and has been in the charge of the Yearly Meeting of Friends for New England. The influences are genuinely religious, but not sectarian, and the pupils are carefully guarded and developed. Much attention is paid to music and the fine arts, and to the sciences; and various forms of athletic sport find opportunity on the spacious grounds. The school educates boys and girls for college or business; and has 22 officers, and 226 students, from 18 States, the principal being Augustine Jones, LL. B., for some time Gov. Andrew's law-partner. George William Curtis commends "the excellence of its instruction and the serene influence of its discipline."

The Redwood Library, incorporated at Newport in 1747, has a collection of 35,000 books, in a beautiful old Doric building, erected by Peter Harrison, assistant-architect of Blenheim Palace, and builder of King's Chapel, Boston. The Providence Athenæum, dating from 1836, is a shareholders' library of 50,000 volumes, with rare paintings and historical relics. The Providence Public Library has 38,000 volumes. The Rhode-Island Historical Society's library (founded in 1822) has 18,000 volumes, 30,000 pamphlets, a cred-

itable collection of the newspapers of the State, bound and arranged in chronological order, together with numerous family, town and State manuscript documents and other memorials of great historic value. The State Law Library has 14,000 volumes. Both of these, and also the great library of Brown University, are at Providence. There are 140,000 volumes in 37 other public libraries, including the beautiful Old-English town-hall and library on Prince's Hill, in Barrington; the granite building of the George Hail Free Library, at Warren; the Rogers Free Library, at Bristol; the Pawtucket Free Library; and the Harris-Institute Library, at Woonsocket.



PROVIDENCE: FROM PROSPECT TERRACE.

There are 60 newspapers in Rhode Island, ten of which are dailies. The foremost paper is the *Providence Journal*, dating from 1820. *The Newport Mercury* was founded in 1758.

Population.—One fourth of the population is foreign-born, half of these being Irish, and a quarter being French Canadian. In density of population, this excels all other States, and is surpassed only by Belgium, British India, the Netherlands, and Great Britain.

Chief Cities.—Providence, at the head of an arm of Narragansett Bay, is the second city of New England, in population and wealth, with a large country trade and shipping, and important manufacturing, financial and railroad interests. It is also one of the chief cities of the world for the making of jewelry and silverware. Six railways converge here, connecting with lines of steamships to New York, Philadelphia, Baltimore and Norfolk. The visitor who looks down from Prospect Terrace will see that Providence is a very pleasant city, surrounded by fine swelling hills. The public buildings and churches include many good pieces of architecture. The Providence High School, the Brown-University Library, and the Narragansett Hotel, as well as the Hail Library at Warren, and the Fall-River City Hall, were designed by Wm. R. Walker & Son, the architects, of Providence. Pawtucket lies close to Providence, on the Blackstone River, which furnishes an abundant water-power at its falls. Woonsocket is an industrious cotton-manufacturing place, in an amphitheatre of hills along the Blackstone, whose falls afford a great power for the mills. There are several thousand French-Canadians among the mill-hands, and their language is in general use. Newport, on Rhode Island, has one of the finest harbors in the world.

PROVIDENCE: NARRAGANSETT HOTEL.

The Narragansett Hotel of Providence has come to be one of the best known hotels in the United States. Besides being of colossal proportions, it possesses grandeur, beauty, convenience, and, in fact, every desirable appointment requisite to a strictly first-class hotel. On entering the spacious rotunda one is attracted by the display of truly artistic taste brought into play in its general arrangement. The grand marble staircase (30 feet wide), leading to the parlor

PROVIDENCE: UNION DEPOT AND CITY HALL.

floor, is very attractive. Numerous fine and costly paintings, from the brushes of some of the world's most noted artists, are to be seen. Among those attracting the most attention are the "Battle of Trafalgar," after Jazeb; "Temptation," by Roestel; "Tally-Ho," by Thorn; and "Les Premieres Fleurs," by L. de Schryver. These are in oil, while among those in water colors may be mentioned "Le Triumphe d'Artane," by Makart; "Soiree de September," by Japy; "Le Parlementaire," by Belfort, and many others. A large number of masterly pieces in the restaurant and café, consisting of fruits, flowers, vegetables, game, and fishes, from the brush of Leavitt, the noted Rhode-Island artist, also attract attention. The hotel will accommodate about 500 guests, is fire-proof, and originally cost over $1,000,000. From an exterior view it presents a most imposing appearance. It is seven stories high, centrally located, and with its 50 feet of streamer bearing aloft its name presents to the spectator one of the most conspicuous landmarks in the city of Providence. This famous hotel property was formerly owned by a corporation, but was recently purchased by Charles Fletcher, the noted millionaire woolen manufacturer, and one of the leading citizens of the place. L. H. Humphreys, one of its founders, has been sole lessee and proprietor for the past ten years, and has renewed his lease for ten years to come. The most signal success has greeted his every effort during his career, and is sure to continue to do so just so long as he continues "Mine Host of the Narragansett."

PROVIDENCE: CATHEDRAL OF STS. PETER AND PAUL.

The Finances of Rhode Island are satisfactory. The rate of taxation per head is $9.74 yearly, which is exceeded only by Massachusetts, New York and California. But in valuation per head ($1,518) it ranks third among the States, while in aggregate valuation it ranks 25th. The savings-banks have 136,648 depositors (with deposits exceeding $66,000,000). Rhode Island had no debt in 1861; but at the close of the Secession War, she had $4,000,000 of bonds outstanding. The Providence Bank was founded in 1791, and still flourishes. The Providence Institution for Savings dates from 1819, and has above $10,000,000 in deposits. Providence, "the Bee-Hive of Industry," is also one of the foremost banking cities in America, and has an unusually large number of strong financial institutions.

The Rhode-Island Hospital Trust Co. was incorporated in 1867. Its charter empowers it to accept and execute trusts of every description and embracing every kind of property. The intentions of its founders have been carried out, and from year to year an increasing number of estates, large and small, have been committed to it for settlement or to be held in trust. The Courts appoint the company as executor, administrator, or guardian of estates, and recognized it in these capacities, and also as trustee under wills, trust-deeds, mortgages and other instruments. The company's trust business is very large, and its management of the affairs thus entrusted to it has been conservative, successful and satisfactory to

WATCH HILL.

its clients. The company also transacts a very large business as a bank of deposit and discount — larger than any other institution in the State. In addition to this, it receives money on "Participation" under rules similar to those of a savings-bank, but with the additional security of the company's capital and surplus. Its business in this department exceeds in amount that of any savings-bank in Rhode Island, with three or four exceptions. The capital is $1,000,000, besides which there is a large surplus in cash and substantial securities. From the beginning the confidence of the business community has been given to it freely, and that confidence it must continue to enjoy while it offers, as at present, the security of abundant capital, conservative management, and honorable and business-like methods. The charter required that a fixed proportion of the profits of the business should be paid over, annually, to the Rhode-Island Hospital, then just started, and this provision has been the source of substantial additions to the resources of that charity.

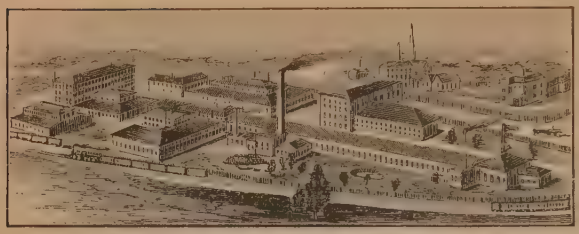
PROVIDENCE:
RHODE-ISLAND HOSPITAL TRUST CO.

The Providence Washington Insurance Co. is the largest insurance corporation in Rhode Island, the oldest joint-stock fire and marine company in New England, and the sixth oldest in the world. It has had but four presidents since its charter was granted, in 1799 — Jackson, Dorr, Kingsbury and DeWolf. The liberal privileges accorded to this company in the beginning have enabled it to carry forward a large and profitable business, which is facilitated by more than a thousand agents, scattered all over the United States; and the long and prosperous life which it has enjoyed bears witness to the wise conservatism always exhibited in the management. It is unusual to find in these days of change and vicissitude a business corporation that was founded while Washington was still alive, and which in its development has kept step with the advancement of the Republic. This company, January 1, 1891, had a capital of $500,000; a reinsurance-reserve of $685,522; claims of $119,756; and a net surplus of $119,269, making gross assets of $1,324,548.

PROVIDENCE:
PROVIDENCE WASHINGTON INSURANCE CO.

The Railroads of Rhode Island cover 305 miles of track, and yearly carry 32,671,430 passengers. The great Shore Line from New York to Boston crosses almost the entire length of the State. The Boston & Providence line was opened in 1835; the Stonington, in 1837, and the Worcester in 1847. There are two railroads from Providence to Boston, 44 miles; and lines from Providence to Stonington, Hartford, Pascoag, Worcester, Warren and Bristol, and Fall River and Newport.

Manufactures have for many years been the chief source of wealth in Little Rhody. There are 2,200 establishments, employing 38,000 men, 22,000 women, and 4,400 children. The capital is $76,000,000. They pay $58,000,000 for materials; and the annual product reaches $104,000,000. The State is ahead of all others in the production per head of cotton, woolen, worsted and mixed textiles, and dyeing and bleaching and printing. The cotton manufacture of America began in Providence in 1788, when Peck, Dexter and Anthony set up a spinning-jenny. Moses Brown came into possession of it, and secured the service of a young English immigrant, Samuel Slater, an apprentice of Jedediah Strutt, Arkwright's partner. From memory he set up here an entire set of the new spinning machinery, as then used in England, and the first factory went into operation on the Pawtucket River, in 1790. In other departments of manufacture the skill of Rhode-Island mechanics has won success, so that the State has become a hive of prosperous industry.

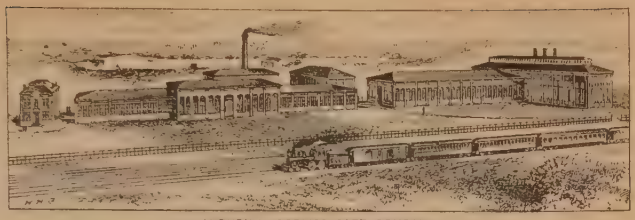


PROVIDENCE: THE CORLISS STEAM ENGINE COMPANY.

When all the immense forest of machinery displayed and in operation at the Centennial Exposition of 1876 kept up its ceaseless round, impelled by the power of the one great Corliss engine, the name of the Corliss Steam Engine Company, of Providence, became known to the people at large, as for a quarter of a century it had been known to the industrial world. More than 40 years ago the business of this company was founded by George H. Corliss. He was the inventor of the steam-engine which bears his name, and the success of which has given rise to so many makers of the so-called "Corliss" engines. To develop and build this engine these works were established, and a few years ago were rebuilt from Mr. Corliss' own plans, whose aim was to construct the model plant of its kind. Here it was intended to build engines with all parts interchangeable for the same sizes, and thus produce at a minimum cost the most perfect of engines. Nine acres at the North End of Providence are covered by these brick buildings. They are directly on the line of the Old Colony and the New-York, Providence & Boston Railroads. Shipments of heavy castings are thus rendered easy. Some of the machine-tools used are capable of stupendous duty. For example, a large lathe turns and finishes a pulley 30 feet in diameter, by 114 inches width of face; a planer is capable of planing a piece seven feet square and 55 feet in length, and the bed milling machines handle castings weighing eight tons. All of these machines were designed by Mr. Corliss himself, and were built at these works. The foundry is thoroughly equipped, and a large brass foundry is also under the same roof. A boiler-shop is also a portion of the works, where the Corliss patent vertical tubular water-leg boiler is made. The forge-shop, too, has an immense capacity. The Corliss engines are built in several different styles, varying in power from 50 to 2,000 horse-power. They are in general and successful use for manufacturing, water-works, and electric lighting, and all other purposes requiring close regulation and economy in fuel.

The Corliss Safe Company have erected extensive, handsome and thoroughly equipped works for the manufacture of the Corliss safe, at Auburn, near Providence. William Corliss is the inventor and patentee, also the president and manager of the company. As a bank director, and while associated with his brother, George H. Corliss, in the manufacture of steam-engines, he first recognized the inability of square safes to resist the attack of burglars. A sphere affords the greatest possible strength and the greatest attainable capacity with a given thickness and weight of material. Mr. Corliss therefore devised a new safe, in spherical form. Imagine a spherical shell, say four feet outside diameter and three feet inside diameter. Cut away one third of this shell by a vertical plane, and you have left two thirds of a spherical shell, resembling the block letter **C**. Within this shell imagine a spherical shell, say three feet extreme diameter, mounted upon pivots or pintles at top and bottom. Assume that the edges of the opening in the larger shell are provided with a series of steps accurately turned and ground, and that the interior shell has corresponding steps on its exterior edge: in practice these steps upon the inner sphere fit so closely the steps upon the outer sphere that there is left no opening. Suppose the inner sphere to be fitted with shelves or compartments. By imparting to the inner

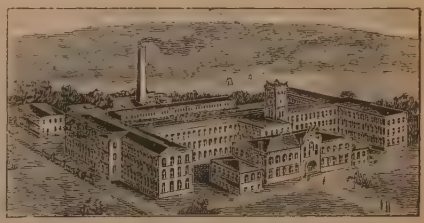
PROVIDENCE: CITY-HALL.



AUBURN: CORLISS SAFE COMPANY.

sphere a slight backward movement the steps are disengaged, and it is then free to revolve on its pintles, bringing the shelves or compartments to the front. When the inner sphere is in its closed position, its steps firmly seated against the steps in the outer shell, it is immovably held in place by an expanding ring that is projected from the exterior surface of the inner sphere into a corresponding groove upon the inner surface of the exterior shell. The mechanism that expands this locking ring and that imparts the forward and backward movement to the inner sphere is locked by combination locks of the most approved pattern. The inner sphere is in reality the safe, for it contains the valuables; it also performs the function of a door, for its solid side is used as a stopper to the opening in the outer shell. This inner sphere being larger than the opening in the outer sphere, it is impossible to blow it out. The whole structure is made by casting chilled gun-metal over a heavy wrought-iron basket, and it is practically impenetrable. These safes are being rapidly introduced in all sections of the country, and more than 30 banks in Providence alone already have them in use.

All Rhode-Islanders feel justly proud of the Gorham Manufacturing Company, which ranks at the head and front of all silverware manufacturers of the world, not only in value of output, but also in the superior quality of the ware, and in having the most magnificent establishment erected for this industry. Silverware for table service is now very extensively used; and likewise plated ware of high grades, the tastes of the better class of people having risen beyond the early Britannia ware and the later inferior plated wares. This is not confined by any means to table service, but millinery ornaments, jewelry, vessels for ecclesiastical use, household ornaments, trimmings for furniture, and countless other small articles are now being made of silver. Providence is famous for its number of large jewelers, silversmiths and silverware manufacturers; but the Gorham Manufacturing Company has added fame from all the cultured countries, its wares being works of the most exquisite fine art. This company was organized in 1865, and now has a capital stock of $1,200,000. They have recently moved into their new factory at Elmwood, a suburb of Providence. This is one of the finest factories of any kind in this country. The plant covers 226,031 square feet. Apart from the large main building of light brick is the foundry and the woodworking building. The main building is arranged so that the parts turning out germane works shall be near. The bullion and melting room is placed between the general manufacturing and the preparatory rooms. At these works 1,200 hands are employed. The Gorham Manufacturing Company has branches at Chicago, San Francisco and Paris. In New-York City there are two warehouses, at Broadway and Nineteenth Street and 9 Maiden Lane, where can be seen a display of solid silver and high-grade silver-plated ware that stands unrivalled in Europe or America.



PROVIDENCE: GORHAM MANUFACTURING COMPANY.

One of the most eminent establishments of Providence is that of the Brown & Sharpe Manufacturing Company, makers of iron castings, sewing-machines, machine-tools and small tools for machinists' use. This business was founded in 1833 by David Brown and his son, Joseph R. Brown; and in 1853 (David Brown having retired several years earlier)

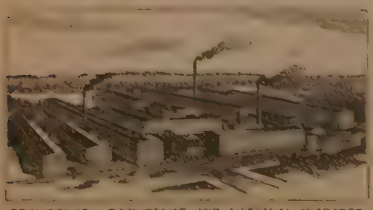
PROVIDENCE: BROWN & SHARPE MANUFACTURING COMPANY.

Joseph R. Brown formed, with Lucian Sharpe, the firm of J. R. Brown & Sharpe. In 1868 this firm was incorporated as the Brown & Sharpe Manufacturing Company. Their buildings are exceptionally neat structures, modern in every particular, most methodically arranged and remarkably well equipped. The total floor space exceeds four acres (a growth from 1,800 square feet in 1853), and the machine-shops in particular are in all respects among the most notable on the continent. The manufacture of the Willcox & Gibbs sewing machines was commenced in 1859, and the requirements of this work have had an important part in stimulating the invention and development of the milling and grinding machines, the cutters that can be sharpened without change of form, and the standard gauges and exact measuring instruments, which have established the reputation of the Brown & Sharpe Manufacturing Company, and materially modified and improved machine shop practice throughout the world. Recently this company has brought out heavier and larger machines than formerly, a number of them being suitable for use in steam-engine or locomotive shops. At international exhibitions the Brown & Sharpe Manufacturing Company has received leading awards; at Paris in 1867, Vienna in 1873, Philadelphia in 1876, Paris in 1878, and at Paris the Grand Prize in 1889. These works employ more than a thousand workmen, and are open to visitors.

SAYLESVILLE: W. F. & F. C. SAYLES'S BLEACHERY.

Near Pawtucket stands one of the handsomest manufacturing plants in America, and the largest of its kind in the world, the Moshassuck Bleachery of W. F. & F. C. Sayles. It was founded in 1847, by Wm. F. Sayles; and has grown year by year until now it covers 30 acres, with its bleachery, drying, and packing houses, and other offices. F. C. Sayles, a brother of the founder of the business, became a partner in 1863. The Sayles brothers have provided admirable church, school and home accommodations for their 1,500 operatives, and the village of Saylesville, on the bright Moshassuck River, is one of the best of the ideal industrial communities of New England.

It was only 15 years ago that Charles Fletcher established in Providence what is to-day the most extensive single plant in the world for the production of worsted yarns and woolen goods. Mr. Fletcher is a native of England, where from an early age he was connected with the manufacture of worsted yarns. His venture at Providence was at first modest, but it grew rapidly, and enlargements were soon necessary. Year by year this process has been repeated, until now two large corporations, the Providence Worsted Mills and the National Worsted Mills, owe to him their paternity. The entire plant covers about ten acres, the chief buildings being seven in number, all built of brick. The mechanical equipment of the plant is the latest



PROVIDENCE: PROVIDENCE AND NATIONAL WORSTED MILLS OF CHARLES FLETCHER.

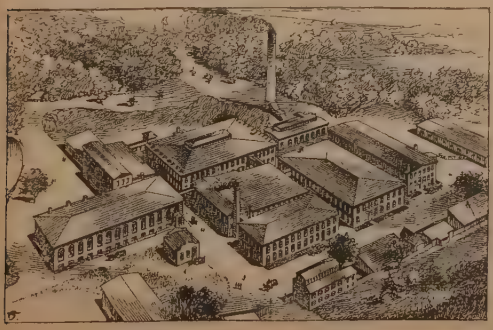
improved and best known to modern manufacturers. It embraces the most costly machinery, both American and foreign, driven by eight large genuine Corliss engines. Every operation, from the receipt of the raw wool direct from the sheep-folds to the shipment of the finished fabric, is accomplished on the premises. Fully 2,500 operatives are employed, very many of whom have been enabled to erect comfortable homes from the fruits of their industry. Besides his success in the textile world, Charles Fletcher has met with a remarkable success in other ventures, notably in his sole ownership of the Narragansett Hotel.

The famous Herreshoff Works, founded at Bristol in 1864, have made many of the swiftest torpedo-boats, launches and vidette boats in the world, for the American, English, French, Spanish, Peruvian and Russian Governments, and scores of beautiful yachts.

NATICK: B. B. & R. KNIGHT'S MILLS.

Little Rhode Island is the seat of a firm about which not much is heard, or read in the public prints, but which nevertheless is the largest producer of cotton cloth, as a corporation or a firm, in the world. It is B. B. & R. Knight, who have their headquarters at Providence, and their chief store at New York, and own and run 13 cotton-mills in Rhode Island and seven in Massachusetts, employing nearly 7,000 persons, and supporting 15 villages. Their aggregate capacity is 11,000 looms and 405,000 spindles, which consume 53,000 bales of cotton yearly, and make nearly 200,000,000 yards of cotton cloth. There are 7,000 looms engaged on sheetings, shirtings, cambrics, twills, and print cloths; and 4,500 looms make the famous cloth, "The Fruit of the Loom," used everywhere for shirtings and sheetings. The firm does its own bleaching. This colossal business was founded in 1847, by Robert Knight, at one time a clerk in the Pontiac Mill, which he afterwards leased, and later purchased. He was joined in 1852 by his brother, B. B. Knight; and since that date the firm has gone forward, adding mill after mill to its vast holdings; the two largest being at Natick and River Point (R. I.). They also own the controlling interest in the Cranston Bleaching, Dyeing & Printing Company.

PONTIAC: B. B. & R. KNIGHT'S MILLS.



PAWTUCKET: DUNNELL MANUFACTURING CO.

The word "calico" is derived from the name of the town Calicut, in India, where large quantities of calico were made and shipped to Europe. The word in England signifies white cotton cloth. The same grade of cloth is used in this country for prints, and became known as printed calico, and later as calico. Large establishments for calico-printing are found in New England and the Middle States. Massachusetts and Rhode Island turn out the greatest quantity. The American output is fully as large

as the European. The consumption of calico in the United States is greater in proportion to the population than that of any country in the world. The production of prints in New England exceeds 300,000,000 yards. The Dunnell Manufacturing Company, of Providence and Pawtucket, incorporated in 1853, are among the largest calico-printers. They turn out all styles and grades of printed calico, on orders only; and are doing a very large business, since special prints are always in demand. They also have departments especially equipped for dyeing piece goods and the finishing of fancy white goods. In 1836 the old Franklin Print Works passed into the possession of Jacob Dunnell & Co., and the trade has grown until now its perfectly equipped works employ 500 operatives, with a capacity for finishing 50,000,000 yards of cloth yearly. Jacob Dunnell died in 1886, and his son, W. W. Dunnell, is now treasurer of the company, Thomas L. Dunnell being its president.

The Providence Steam & Gas Pipe Company was established 40 years ago, and incorporated in 1865. It has won a high reputation for all work pertaining to the use of steam, water, gas and air, in manufacturing establishments, and for the reliable character of all fittings, material and apparatus employed. The company makes a specialty of equipping factories and other establishments with apparatus for extinguishing fires. It inaugurated the now celebrated system of automatic fire-extinguishers. At first it adopted and improved the so-called Parmelee sprinkler, which had been employed to a limited extent under the supervision of its inventor, and was quite largely introduced into factories, as well as into a few dry-goods and other warehouses. Gradually, however, in its practical workings certain structural limitations in its efficiency were revealed, which led to the invention by Frederick Grinnell of a successful sprinkler of a radically different type. The Grinnell Sensitive Automatic Sprinkler not only completely superseded all preceding devices, but none of all of the later devices has ever made successful competition with it. From its first introduction the Grinnell apparatus has been an assured success. It has operated effectually in more than 800 actual fires, with no failures. These fires now average 15 monthly, with a constantly increasing ratio. Upon this device hinges an epoch remarkable in the history of fire protection and of the business of underwriting, for the insurance companies make an important reduction wherever it is introduced. The great buildings of the Matthews-Northrup Co., of Buffalo, wherein "King's Handbook of the United States" was made, were saved from destruction by the powerful work of the Grinnell apparatus.

PROVIDENCE: PROVIDENCE STEAM & GAS PIPE CO.

Domesticated horses compelled to move draught-burdens beyond their own weight, or to attain gaits above their voluntary speed, on hardened roads, would speedily become disabled by worn hoofs if it were not for the skillful devices of modern farriers, in preparing iron plates for the protection of their hoofs. The Rhode-Island Horse-Shoe Company, in its works at Valley Falls, does an immense and profitable business in manufacturing a variety of shoes for horses and mules, the different kinds being adapted to the several seasons and the many services to which such animals are put. It has been in successful operation for many years, and its stock, with a par value of $100, is now said to be worth $1,000 a share. Many very ingenious machines are in use here, to produce varieties of horse-shoes that exemplify the best ideas of modern farriery; and the products of the works are sent to all parts of the continent. The main offices are at Providence. F. W. Carpenter is president; C. H. Perkins, vice-president; and Richard W. Comstock, secretary.

PAWTUCKET: RHODE-ISLAND HORSE-SHOE COMPANY.

PROVIDENCE : AMERICAN SHIP WINDLASS CO.

"Given all things to ships as they should be, then all ships should return," said a veteran ship captain who never lost a vessel. One of the vital equipments of a ship is the windlass; and those manufactured by the American Ship Windlass Company, of Providence, have gained such a reputation that 90 per cent. of the best American vessels have them. The steamships of the Morgan, Clyde and Mallory Lines use them, and so also do the war-vessels of the United-States Navy, like the *Baltimore*, *Philadelphia*, *Boston*, *Atlanta*, and *Chicago*. A breadth of view extending outside their own establishment has given to this company control of a large number of inventions very valuable to the shipping interest. A noteworthy fact about this establishment is that Frank S. Manton, its head, has been connected with it for more than a third of a century. Most of this time he has been the business agent and manager; and the success of the American Ship Windlass Company is largely due to his able supervision and direction of affairs.

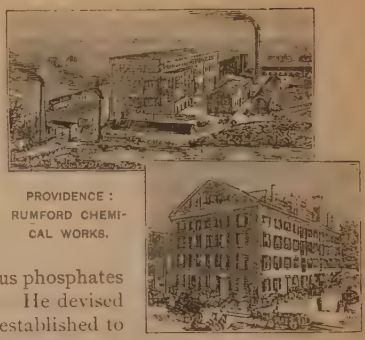
What is waste to one person is a fortune to another, and a marked example of this is shown in one of the unique industries of Providence, that of the refining and smelting of precious metals, as done by John Austin & Son. It was during the civil war that this industry was established. The specialty of the firm, and the one in which it stands at the head in this country, is that of the smelting of jewelers' sweepings, binders' cotton waste, platers' washings, and similar refuse. All this a few years ago was absolutely waste material. Through the process followed in these works a large amount of this otherwise useless material is absolved of its impurities, and its valuable components extracted. This industry was started in a small way, but so important has it proved to many artisans throughout the country that every year it has increased, until now this firm has amassed a great fortune, and attained a national reputation. It is somewhat remarkable that although the house has been so successful, and although they employ more than 20 men, the scientific parts of the work of refining and smelting are invariably performed by the Messrs. Austin themselves. Three large buildings and part of another are now occupied by the business.

PROVIDENCE : JOHN AUSTIN & SON.

PAWTUCKET : RHODE-ISLAND CARD BOARD CO.

The Rhode-Island Card Board Company of Pawtucket is the oldest house engaged in this branch of manufacture in the country, and dates its origin from the year 1844. During the period of nearly half a century since then it has had a career of uninterrupted success. The products include every kind of card board for printers and photographers, and stock for lithographers' use, in many grades and tints. The four-story brick building occupied by the company is supplied with valuable and ingenious labor-saving machinery, and 75 operatives are constantly employed in the manufacture, building up layers of paper into card board, two-ply, three-ply, and four-ply. The product varies from the lightest and most delicate and flexible grades up to material almost as thick and strong as boards, and capable of great endurance. The president of the Rhode-Island Card Board Company is Lowell Emerson, and the treasurer is Walter H. Stearns.

The National India-Rubber Company has an immense plant at Bristol, which has employed 1,300 operatives, and produced $2,500,000 worth of goods in a year.



PROVIDENCE: RUMFORD CHEMICAL WORKS.

Another characteristic and prosperous industry of Rhode Island is the manufacture of phosphatic preparations for culinary and medicinal purposes, in the Rumford Chemical Works, at Rumford and Providence. These valuable and widely used articles were devised by Prof. E. N. Horsford of Cambridge (Mass.), formerly Rumford Professor of Chemistry in Harvard University, and now president of the company, which derives its name from the professorship and its honored founder. In 1856 Prof. Horsford conceived the idea of restoring to bread, in the form of a baking-powder, the nutritious phosphates of which flour is deprived in the process of bolting. He devised a dry, white and acid powder, and the works were established to manufacture this product. It is combined with the proper materials, under the several names of Horsford's Baking Powder, Horsford's Bread Preparation, and Rumford Yeast Powder. Another production is Horsford's Acid Phosphate, now used by physicians in almost every country, and "Phosa," a nutritious and palatable drink.

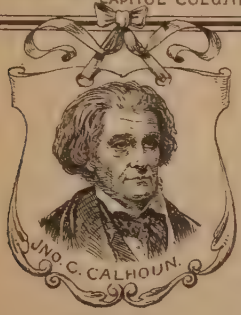
Another establishment that for over half a century has brought world-wide fame to Rhode Island is the house of Perry Davis & Son, the originators and makers of the Perry Davis Pain-killer. In 1840 Dr. Perry Davis produced a preparation that he knew would immediately alleviate pain; and from that time on he and his successors have spent hundreds of thousands of dollars in making known its virtues to the people of all lands. Wherever one goes, the world over, he can readily obtain the Pain-killer, a fact which is abundant evidence of its value. There is no country in the world to which these goods are not constantly being sent. The printed matter of the house is issued in 29 different languages; and the Pain-killer is to be found in millions of houses. One of the early causes of its success was the fact that Perry Davis was an ordained Baptist clergyman, serving as an itinerant preacher. As fast as he earned money he contributed liberally to foreign missions, and the missionaries soon came to reciprocate by helping him to introduce the Pain-killer. Foreign missionaries are now its warmest endorsers, particularly for incipient cases of cholera.

PROVIDENCE: PERRY DAVIS & SON.

The Rhode-Island State Agricultural Experiment Station was opened on a farm of 140 acres, at Kingston, in 1888, and receives $15,000 yearly from the United States. Rhode Island erected the granite building for laboratory and offices. Four bulletins are issued yearly, for free circulation among farmers and newspapers. The State Agricultural School, on the same domain, has a granite College Hall, a veterinary hospital and other new buildings. It was opened in 1890, and has nine instructors and 54 students, who supplement class-room work with study in the laboratories, shops and fields. The State erected the buildings, and maintains the school. The Commonwealth also has many free scholarships in Brown University, to which it gave the National Agricultural grant of 1862, amounting to $50,000. More than 40 students are kept on this foundation.

Rhode Island wholly or partly supports 50 curable insane persons at the Butler Hospital, a private asylum at Providence, whose aim is "to provide suitably for persons of refinement." The yearly payment for each State patient is $280. The Rhode-Island Soldiers' Home was opened in 1891, on a spacious farm near Bristol, and has 66 inmates.

The Dorr Rebellion of 1843 was caused by the dissatisfaction of the suffrage party with the old colonial charter, which disfranchised all but property-owners. Dorr endeavored to seize the arsenal, but was driven away, and afterwards dispersed by United-States forces.



HISTORY.

About 3,000 Indians lived in South Carolina when the first settlers arrived. The mountain-dwelling Cherokees numbered 1,000; and the Catawbas, between Cheraw and Yorkville, 1,600. The Yamassees, Sewees, Congarees, Winyaws, Waccamaws, and other tribes were unimportant. There were more than a score of these little clans, each with its distinct language. About 131 Catawbas now dwell in the State. The Saludas migrated to Pennsylvania; the Tuscaroras, to New York; and the Yamassees to Florida. The Sewees were lost at sea, having, after long deliberation, started in a fleet of canoes, to make a commercial voyage to England.

The first European adventurers who reached the South-Carolina shores were a group of Spanish slave-hunters from Hispaniola, who (in 1520) landed on St. Helena and claimed the country for Spain. They seized 70 natives, to be sold into slavery, but most of these captives preferred and welcomed death. In 1523 the Emperor Charles V. commissioned Vazquez de Ayllon to conquer this land, but the expedition came to grief, and 500 Spanish soldiers died. In 1562 Ribault's vessels arrived on the coast, bearing a gallant band of Huguenots, sent out by Admiral Coligny. On the site of Beaufort they built the defences of Charles Fort (Arx Carolina), where 26 men stayed for a year, and then returned to France. Ribault named this noble haven *Port Royal*, saying: "Wee stroke our sailes and cast anker. The greatest shippes of France, yea, the argosies of Venice, may enter in there."

King Charles II. granted Carolina to the lords-proprietors in 1663; and seven years later their little fleet reached Beaufort. Finding this site perilously near the truculent Spaniards of Florida, the colonists moved to the Ashley River, and founded Charles Town. The little colony had to fight the Indians on one side, and on

STATISTICS.

Settled at	Charleston
Settled in	1670
Founded by	Englishmen.
One of the Original 13 States.	
Population in 1860,	703,708
In 1870,	705,606
In 1880,	995,577
American-born,	7,891
Foreign-born,	7,686
Males,	490,408
Females,	505,169
In 1890 (U. S. Census),	1,151,149
White (1890),	458,454
Colored (1890),	692,503
Population to the square mile,	33.0
Voting Population,	205,789
Vote for Harrison (1888),	13,736
Vote for Cleveland (1888),	65,825
Net State Debt,	$6,473,476.38
Assessed Valuation of Property (1890),	$132,000,000
Area (square miles),	30,570
U. S. Representatives (1893),	7
Militia (Disciplined),	5,513
Counties,	35
Post-offices,	1,181
Railroads (miles),	2,194
Vessels,	220
Tonnage,	11,472
Manufactures (yearly),	$16,738,008
Operatives,	22,128
Yearly Wages,	$2,836,289
Farm Land (in acres),	13,535,237
Farm-Land Values,	$68,677,482
Farm Products (yearly)	$41,669,749
Public Schools, Average Daily Attendance,	136,358
Newspapers,	126
Latitude,	32°4′30″ to 35°12′ N.
Longitude,	78°25′ to 83°19′ W.
Temperature,	11° to 104°
Mean Temperature (Columbia),	62°

TEN CHIEF CITIES AND THEIR POPULATIONS. (Census of 1890.)

Charleston,	54,955
Columbia,	15,353
Greenville,	8,607
Spartanburg,	5,544
Sumter,	3,865
Beaufort,	3,587
Camden,	3,533
Florence,	3,395
Newberry,	3,020
Anderson,	3,018

the other the Spaniards from Florida, whose galleys plundered the Sea Islands, destroyed Port Royal and attacked Charleston. For some years the Carolinas were governed under John Locke's fantastical Fundamental Constitutions, with their palatines, landgraves, cassiques and barons. The cessation of the obnoxious Proprietary government, and the formal division of Carolina into North and South, occurred in 1729 (they had been under practically different governments since 1690). The name "South Carolina," appears in the Statutes at Large in 1696.

SPARTANBURG: COWPENS MONUMENT.

The immigrants of the next few decades included a Dutch colony from New Amsterdam, on John's Island; a Congregational church from Dorchester, Mass., to Dorchester, S. C.; 370 Swiss at Purysburg; bands of Scotch Covenanters, from County Down, in Williamsburg; Germanic tribes, in Orangeburg; Welshmen, on the Pee Dee; Scottish Highlander rebels, in the hill-country; Irish Quakers, at Camden; French Huguenots, at New Bordeaux; hundreds of Pennsylvanians and Virginians, seeking safety after Braddock's defeat; and many cargoes of African slaves, brought into Charleston.

The Revolution became a bitter civil war in South Carolina, for many of her people were rancorous Tories, who devastated the homes of the patriots without mercy, under the protection of British armies. But in the deep swamps Marion and Sumter and other heroic leaders assembled efficient partisan forces of Carolinians, and kept up an unceasing warfare against the King's forces. In 1776 Sir Peter Parker and a powerful fleet attacked the palmetto fort on Sullivan's Island, near Charleston, and was beaten off by the Second and Third South-Carolina Regiments, with great loss. Four years later, Sir Henry Clinton captured the town, by siege, and with it Gen. Lincoln's army, after which the State was over-run and garrisoned by the Royalists. Gates advanced south from Virginia, with 3,663 Americans, and Cornwallis shattered his army at Camden, and took all his guns; and a year later (1781) he defeated Gen. Greene, near the same place, but suffered such losses that he was compelled to retreat. Then the local militia reduced the British forts at Orangeburg, Granby, Augusta, Georgetown and Ninety-six. In September a sharp battle was fought at Eutaw Springs, and the Royal troops retired to Charleston, which was finally evacuated by Gen. Leslie, December 14th, 1782, and occupied by Wayne's Pennsylvanians.

CHARLESTON HARBOR: FORT SUMTER.

In 1832 the Convention at Columbia pronounced the United-States tariff "null, void, and no law, nor binding on this State, its officers or citizens," adding that if the tariff should be forced upon her, South Carolina would leave the Union. Gov. Hayne and the General Assembly ratified this Nullification Ordinance, whereupon President Jackson proclaimed nullification to be treason, and sent Gen. Scott to Charleston.

As soon as Lincoln was elected President, South Carolina called a convention, which (December 20th, 1860) declared that the Union between her and the other States was dissolved. The same week, Maj. Anderson, commanding the United-States troops at Charleston, transferred his forces to Fort Sumter, which was bombarded by the investing Confederate batteries, April 12–13, and compelled to surrender. At one time South Carolina had 44,000 men in the Confederate armies, her entire enlistments reaching 60,000. Of these, 12,000 died in the service. The

CHARLESTON: RESIDENCES ON THE BATTERY.

first return of the Stars and Stripes to South Carolina came as early as November, 1861, when Flag-Officer DuPont and 50 vessels bombarded the Confederate forts at Port Royal, which were afterwards held throughout the war, by Federal forces. An ineffectual attempt was made to seal up Charleston harbor by sinking in its outer channels condemned whaling-ships laden with stones.

CHARLESTON: JASPER MONUMENT.

In April, 1863, Rear-Admiral DuPont attacked the Charleston forts with seven ironclads, and suffered a serious repulse. A few weeks later, Gen. Gillmore began the siege of Charleston, advancing by Folly and Morris Islands; reducing Battery Gregg and Fort Wagner by parallels, after direct assaults had failed; and then from their ramparts raining shot and shell on the city for weeks. In February, 1865, Gen. Sherman marched northward from Savannah with his great army, occupying Branchville, Columbia, Camden, Cheraw, and other towns. Gen. Hardee evacuated Charleston, and a National brigade occupied it.

The great earthquake in Charleston, August 31, 1886, destroyed $5,000,000 in property, and many lives.

South Carolina has always been distinguished for the courage and vigor of its counsels and actions in political affairs, and has in many regards stood as the intellectual leader of the South. Thousands of people remember, with Trescot; "The love of South Carolina, the solemn music of the wind in her pine forests, the glory of the sunlight on her broad marshes, the glow of the great ocean as it clasps her beautiful coasts."

The Name of the State has an origin similar to that of North Carolina. The pet name is THE PALMETTO STATE, from the palmetto tree on the seal of the commonwealth.

The Arms of South Carolina show a palmetto tree, and a female figure representing Faith. The mottos are *Animis Opibusque Parati* ("Prepared in mind and resources") and *Dum Spiro Spero* ("While I breathe, I hope").

The Governors have been: Chas. Pinckney, 1789-92, 1796-8, and 1806-8; A. Vanderhorst, 1792-4; Wm. Moultrie, 1794-6; Edward Rutledge, 1798-1800; John Drayton, 1800-2; J. B. Richardson, 1802-4; Paul Hamilton, 1804-6; John Drayton, 1808-10; Henry Middleton, 1810-12; Jos. Alston, 1812-14; D. R. Williams, 1814-16; Andrew Pickens, 1816-18; John Geddes, 1818-20; Thos. Bennett, 1820-2; J. L. Wilson, 1822-4; R. J. Manning, 1824-6; John Taylor, 1826-8; S. D. Miller, 1828-30; J. Hamilton, 1830-2; R. Y. Hayne, 1832-4; Geo. McDuffie, 1834-6; Pierce M. Butler, 1836-8; Patrick Noble, 1838-40; J. P. Richardson, 1840-2; J. H. Hammond, 1842-4; Wm. Aiken, 1844-6; David Johnson, 1846-8; W. B. Seabrook, 1848-50; John H. Means, 1850-2; J. L. Manning, 1852-4; J. H. Adams, 1854-6; R. F. W. Alston, 1856-8; W. H. Gist, 1858-60; F. W. Pickens, 1860-2; M. L. Bonham, 1862-4; A. G. Magrath, 1864-5; Jas. L. Orr, 1865-8; R. K. Scott, 1868-72; F. J. Moses, Jr., 1872-5; D. H. Chamberlain, 1875-7; Wade Hampton, 1877-8; W. D. Simpson, 1878-80; Johnson Hagood, 1880-2; Hugh S. Thompson, 1882-6; J. P. Richardson, 1886-90; and Ben R. Tillman, 1890-2.

Descriptive.— South Carolina forms an isosceles triangle, with the coast for the base, and the sides, bounding on North Carolina and Georgia, meeting on the crest of the Blue Ridge. The low country extends inland for 100 miles, to the crystalline rocks, where the up-country begins. The light-colored sandy loam, the still rivers, the magnolias and long-leaf pines and trailing gray mosses of the one are sharply contrasted with the red-clay hills and rapid streams and oak forests of the other; and as great a difference is perceived in the manners and characters of their populations. The lowlanders were the dutiful subjects of the lords-proprietors, and came mainly from Europe, with their outposts at Hamburg, Columbia, Camden and Cheraw, and their communications by boat along the innumerable sounds and inlets of the coast. The Upper-Carolinians were almost exclusively hardy

frontiersmen from Pennsylvania and Virginia, who came down by wagons along the troughs of the Blue Ridge, and for over a century kept up overland trade with their old homes.

CÆSAR'S HEAD.

The Sea Islands lie south of the Santee, and mainly off Port Royal, covering 800 square miles, bordered by 600 square miles of low salt-marshes. They face the sea with beaches of snowy whiteness, beyond which tower dark green pines, moss-draped live-oaks, and lone palmettos, rising from jungles of myrtles and pines. The coast extends 190 miles, from the Savannah River to Little River. North of Winyaw Bay it is a continuous beach of firm gray sand, sometimes for 20 miles without a break. South of Winyaw a network of sounds and inlets extends, between and behind the Sea Islands, as far as Florida, and steamboat lines (especially between Charleston and Savannah) follow this sheltered inside route. The Lower Pine or Savannah Region lies next inland, with a width of 50 miles, including the rice-fields and the turpentine country and cattle-ranges. The lowland region also bears oranges, figs and olives, and vast quantities of wild grapes. The Upper Pine Belt, Central Cotton Belt, or Middle Country, is 20 miles wide, with light sandy loam, great swamps, and rolling forests of long-leaf pine, oak and hickory. In this region are Orangeburg and Sumter. The Red Hills, 300 to 600 feet above the sea, are composed of red clay and sand, overgrown with oak and hickory, and including the fertile ridge-lands of Edgefield and the High Hills of Santee. The Sand Hills, or Pine Barrens, run northeast across the State, from Augusta to Cheraw, 155 miles, with a width of from 20 to 30 miles, and an area of 2,400 square miles. Aiken, Columbia, Camden and Cheraw stand in this belt. In some localities the hills are of dazzling white sand, and elsewhere great forests of long-leaf pine sweep over the ridges. More than half of the population is colored; and only a tenth of the country has been cultivated.

The Piedmont region, 400 to 800 feet high, has the cold gray slate lands, gray granite soils, red hornblende lands, and flatwoods meadow, or black-jack lands. Here stand the towns of Abbeville, Winnsboro, Greenville, Newberry and Spartanburg.

The Alpine region, 114 miles long and from eight to 21 miles wide, is a rolling table-land, 1,000 to 1,500 feet high, ascending to the Saluda Mountains, along whose summits the State boundary runs for 50 miles. The highlands culminate in Mount Pinnacle, 3,436 feet high, near Pickens Court House. This is a land of noble scenery, bracing and healthy climate, luxuriant soil, clear streams and mineral springs. The rivers pour down from the Blue Ridge to their falls at the end of the crystalline rocks, and then pass slowly on to the sea. The Savannah is navigable to Hamburg, 158 miles, and many small boats descend it from Andersonville, 100 miles higher up. The Santee is navigated by steamers for its whole length of 184 miles. The Congaree may be ascended to Granby, two miles below Columbia; and the Wateree, to Camden. The Saluda, Broad and Catawba rivers are traversed by small boats, even up into the Blue Ridge, their rapids being overcome by many miles of canals and locks. Steamboats go up the Great Pee Dee to Cheraw, 120 miles; and other streams of the northeast are navigable. The fisheries employ 1,000 men. The Ashley and Cooper Rivers enter Charleston harbor, which is surrounded by the low Sea Islands, and by marshes covered at high tide. Steamboats run regularly from Charleston to Columbia, 250 miles; to Georgetown and Cheraw, 300 miles; and through the creeks to Beaufort, Port Royal and Savannah. The fishermen are

CHARLESTON: CALHOUN STATUE AND CITADEL, ON MARION SQUARE.

CHARLESTON : ST.-PAUL'S CHURCH.

chiefly negroes, about Charleston and Winyaw Bay. The rivers have been stocked with valuable food-fish. South Carolina leads all the States in shrimp, with a yearly catch of 18,000 bushels.

The Climate resembles that of southern Europe, with warm and dry winters and a prevailing equability. The sea-breezes refresh the shore-counties, and the up-country is cooled from the Blue Ridge, where much snow falls in winter. The rice-lands are uninhabitable by whites in summer, although the negroes can endure their climate. The Sea Islands have a relatively delightful summer climate, whence many of the planters bring their families here. The climate of the sand-hills is dry, tonic and stimulating, free from malaria, and full of sunshine, with prevailing south and south-west winds, and rare and transient snows or fogs. The waters are pure and transparent; and the air is at once free from bleakness and from debilitating influences. The mean temperature of Aiken in winter is 46.4°, and in spring 63.4°, and the far-surrounding pine-forests fill the air with healing terebinthine perfumes. For many years this has been one of the great refuges for consumptives and rheumatics, and thousands of others frequent the locality.

COLUMBIA : SOUTH-CAROLINA UNIVERSITY.

Farming.—South Carolina is mainly an agricultural State, and her farm-products reach nearly $50,000,000 yearly, including the cereals, hay and rice, tobacco and cotton. The farms were valued in 1860 at $146,000,000, and in 1870 at only $47,000,000. 70 per cent. of the laborers are colored. 61 per cent. of the colored women and children, and 23 of the whites, work on the farms. The fields furnish abundant crops of vegetables and berries, including vast quantities of strawberries for the North; the orchards produce oranges, lemons, olives, pomegranates, figs, peaches, apples, quinces, and other delicious fruits; and the gardens are odorous and brilliant with Cherokee roses, jessamines, camelias, hyacinths, and hundreds of other flowers. Cotton has been raised here ever since the colony came into being. Its export began about a century ago. The output in 1860 was 353,412 bales, valued at $14,000,000; and after a sharp fall to 1870, it rose again, in 1880, to 516,490 bales, of 475 pounds each, and in 1887 to 605,000 bales, valued at $24,000,000, over half the agricultural output of the State. Sea-Island cotton was first raised in 1790, at Hilton Head, and in 1887 reached an output of 15,000,000 pounds of long-staple, since which it has been falling off. Most of the island plantations are owned or rented by colored men. The Edisto-Island cotton is the best in the world, and has brought 20 times as much a pound as any other.

ORANGEBURG : CLAFLIN UNIVERSITY.

Rice culture began here in 1693, from seed brought from Madagascar, by a vessel which

RICE FIELDS.

CHARLESTON: ORPHAN ASYLUM.

put into Charleston in distress; and 60 years later the colony exported over 10,000 barrels annually. In 1850 the crop exceeded 256,000 tierces; but by 1884 it had fallen to 34,000. In 1887 it amounted to 70,000,000 pounds, valued at $1,400,000. Carolina rice is the best in the world, and is carefully prepared here, by ingenious processes. This State is the leading one in growing rice, and its vast tidal marshes afford capital opportunities for its extension. When gathered it is covered with a thick hull, know as the paddy. The rice then has to go through a pounding operation, and when the paddy is broken off it passes through the second stage. Although the shell is removed, the grains of rice are covered with a very fine powder, which has to be brushed off. The brushing machine is of a peculiar construction. Rotary brushes catch up the rice, sweep the dust from it, and throw the grains, all cleaned, into a hopper, through which it is fed to sacks and barrels. Originally this was done by hand, but the great demand for domestic rice necessitated the introduction of machinery. Much of the imported rice is treated in this way in New-York City, but the domestic rice is cleaned in the vicinity of the mill. Charleston is the principal receiving point for the rice of the South Atlantic States; and the West Point Mill Co. of Charleston operates the largest rice-mill in the United States. The plant is located in the western part of Charleston, and covers about 16 acres of land. The mill building is of brick, and is three stories in height, and there are four warehouses for the storage of stock. About 35 hands are employed and the annual payroll approximates $30,000. The output last year amounted to 300,000 barrels of clean rice and rice flour. The waste in bulk is considerable, as the above output amounted to 313,000 barrels of rough rice or paddy. The West Point Rice-Mill product, aside from that sold from the main office, is handled by Dan. Talmage's Sons, the representative mill-brokerage house of this country.

CHARLESTON: WEST-POINT MILL CO.

The State raises yearly 18,000,000 bushels of corn, and 4,000,000 of oats. The 200 turpentine-stills in the lowlands employ 7,000 men, with a yearly yield of $3,000,000, being one third of the American output. The lumber product is $6,000,000 yearly, employing 6,000 persons. The live-stock is valued at $20,000,000, and profit is found in dairying and in raising cattle for beef.

Minerals.—Gold has been mined in sixty places, before the war, and two of the mines produced over $1,000,000 each. There are now four mines, mainly in Lancaster County, with 100 miners, and a yearly product of $100,000. Silver, lead, copper and graphite appear in small quantities, and inexhaustible supplies of iron ores. White and colored marbles, blue and white granites, manganese, barytes, asbestos, soapstone, corundum, mica, ochre, kaolin and whetstones abound in the Piedmont region. In the Aiken neighborhood inexhaustible deposits of kaolin are found and mined, and several factories have been put into operation. From this mineral the finest Sèvres china and porcelain can be made, as well as the commoner and more useful earthenwares.

CHARLESTON: CITY HOSPITAL.

The river-beds of South Carolina now produce 231,000 tons of phosphate rock in a year, and the land-beds nearly 400,000 tons, and the industry is continually increasing. Nearly half of this output is shipped away. It brings from $3.50 to $9.50 a ton. The

State receives a royalty on phosphate rock from the beds of streams. The land rock is crushed by 40 local factories into fertilizing material. Beaufort ships more than half the phosphate, and Charleston the rest.

LAMB'S : WORKS OF THE CHARLESTON MINING & MANUFACTURING CO.

The use of commercial fertilizers by farmers has now become general, and the variety most universally used is phosphate of lime. The Charleston (S. C.) Mining & Manufacturing Company owns the largest land phosphate mines in the world. The company was organized in 1867; and was the pioneer to develop the phosphates in South Carolina. The capital is $1,000,000; and its stock is worth double its par value. About 16,000 acres of land, containing the richest deposits of available phosphate in the State, are owned by them. The phosphate is of nodular formation, and is found in a well-defined stratum of from one to three feet thick, at an average depth of five feet. The works of the company, on Ashley River, 15 miles from Charleston, have an average daily capacity of 300 tons; the drying-bins hold about 15,000 tons of kiln-dried phosphate. They have their own machine, carpenter and blacksmith shops, where their cars are built, and their repairing done. Seven miles of railway penetrate their mining fields, and a number of small locomotives, with their trains, draw the phosphate to the washers. About 1,000 hands are employed in the various operations of the company. The mines are worked without cessation throughout the year, and at the present rate of production, the supply will last over a hundred years. The total annual output of South-Carolina phosphates is about 500,000 tons, and is shipped to all parts of the world. Of this amount, the Charleston (S. C.) Mining & Manufacturing Company ships over 100,000 tons. The main office of the company is in Philadelphia (Pa.), where its chief stockholders reside.

CHARLESTON : ST.-MICHAEL'S CHURCH.

Government.—The governor and executive officers are elected every two years. The General Assembly includes 35 four-year senators and 124 two-year representatives. The Supreme Court has three justices, appointed for six years; and there are criminal, probate and justices' courts. The State House is built of cyclopean blocks of local granite. It was begun in 1850, and has cost above $2,000,000, although not nearly finished. The State Volunteer Troops include 71 companies, in three regiments and four battalions of infantry, two regiments and three battalions of cavalry, and three batteries, besides a sea-coast battalion. The National Guard has 18 companies. All of these soldiers wear the uniform of the United-States Army, furnished by the Government. The State pays pensions to 600 disabled Confederate veterans, and 1,500 widows of those killed in the service. The Penitentiary, at Columbia, has 900 prisoners, nearly all negroes, and is self-supporting, the convicts working in the phosphate mines and prison shoe-shops. The Lunatic Asylum, at Columbia, has 800 inmates. The Institution for the Education of the Blind, Deaf and Dumb, at Cedar Springs, has 100 inmates.

CHARLESTON : CENTRE MARKET.

Education is not well supported, especially in the free schools, but much progress has been made since 1870, and several of the cities now have efficient graded schools. In the country, the appropriations are small, and the yearly sessions have been reduced to less than

four months. South-Carolina College was opened in 1804, as a State institution, and in 1888 changed its name to South-Carolina University. Lieber and Cooper were among its professors; and in the roll of its 2,000 graduates were Legaré, McDuffie, Preston, 22 State governors, 60 congressmen, five bishops, and 33 judges and chancellors. This noble old institution occupies an extensive campus at Columbia, where great trees overshadow many dignified and stately buildings. The College of Charleston dates from 1785, and has 400 graduates, including the poet Hayne, the diplomat Trescot, and De Bow, of the *Review*. The South-Carolina Military Academy, in the Citadel at Charleston, is maintained by the State. It was founded half a century ago, as a child of West Point, and has graduated many distinguished military officers, civil engineers, and other notables. In 1854 the Methodist Episcopal Church, South, opened Wofford College, at Spartanburg. It now has ten professors and 60 students. Of almost the same size is Newberry College, founded by the Lutherans in 1858. Somewhat smaller is Furman University, founded by the Baptists, at Greenville in 1851; and Adger College, at Walhalla, founded by the Presbyterians, in 1877. Erskine College, at Due West, belongs to the Associate Reformed Presbyterians. The crown of the great system of education for the colored people is Claflin University, at Orangeburg, founded by the benevolence of the Hon. Lee Claflin and the Hon. Wm. Claflin, of Boston (Mass.), in 1869, and now teaching nearly a thousand colored men and women, with schools also of agriculture, carpentry, printing, tailoring, shoe-making, painting, blacksmithing, merchandising and domestic economy. Allen University, at Columbia, is managed by the colored people.

CHARLESTON: CUSTOM HOUSE.

Railroads.— The tenantless houses and grassy streets of ancient Charleston compelled her Chamber of Commerce to reach out for trade, and in 1827 they secured a charter for a railroad to Hamburg, which was begun in 1830 and finished in 1833, being then and for many years later the longest continuous railroad in the world (136 miles). This also has the honor of being the first railroad to carry the United-States mail (February, 1832). It was built on piles six feet apart, bound together by transverse sleepers, and surmounted by long varnished wooden rails, five feet apart and nine inches square, with flat bar-iron nailed to the inner side of the top. The Atlantic Coast Line includes the Wilmington, Columbia & Augusta; the Northeastern, from Florence to Charleston; and the lines to Conway, Bishopville, Dillon, Cheraw and other points. The Piedmont Air Line includes the various lines of the Richmond & Danville Railroad in the hill country. The South-Carolina Railway runs northwest from Charleston to Columbia, Aiken and Augusta.

Chief Cities.— Columbia, the capital, near the centre of the State, is a pleasant little city, with impressive public buildings, the intersections of several railways, and machine, car and iron works. It is a city of wide streets, shaded squares and flowery parterres.

Charleston is a handsome old city, facing from its verdant and aristocratic Battery on a broad and historic harbor, which is traversed by a large commerce, and lines of steamships to New York, Boston, Baltimore, Philadelphia and Savannah. Up to within 75 years, Charleston had a larger commerce than New York, but its yearly exports are now scarcely above $20,000,000, mainly of cotton, naval stores and phosphate. The city has an inland trade of $30,000,000 a year; and its 360 factories employ 5,200 persons.

Up the coast is quaint old Georgetown, with its maritime commerce. Down the coast little Port Royal looks out on one of the noblest of American harbors, with aristocratic old Beaufort farther in, crowning the bluffs with its famous shell-road and promenade.

The Manufactures include cotton goods and gins, flour, fertilizers, lumber, and tar and turpentine. The product of the cotton-mills increased from $713,000 in 1860 to $10,000,000. This is the chief cotton-manufacturing State of the South, and uses 132,000 bales yearly.

HISTORY.

The Dakotas came under the American flag by the Louisiana Purchase, in 1803. The part of South Dakota east of the Missouri belonged successively to the territories of Louisiana, Missouri, Michigan, Wisconsin, Iowa, Minnesota, and Dakota. The section west of the river was separated from Missouri in 1834, and became part of the Indian Country until 1854, when it was annexed to Nebraska. The Territory of Dakota came into existence in 1861. The great Indian domain of Dakota received here and there wandering French-Canadian trappers or traders, who married Sioux maidens, and dwelt among the wigwams. After Lewis and Clarke's exploring expedition ascended the Missouri, in 1804 6, the American, Missouri, Northwestern, Rocky-Mountain, and Columbia Fur Companies pushed their pioneer posts up the river. In 1830–32 the steamboats *Yellowstone* and *Assinniboine* ascended the stream, the pioneers of a vast company. In 1851 the Indians signed the treaty of Traverse des Sioux, ceding to the United States the territory between the Minnesota line and the Big Sioux River. This grant was followed by subsequent cessions and attendant military demonstrations, as when Gen. Harney marched an army of 1,200 men from the Platte to Fort Pierre, in 1855.

The first settlement was established in 1857, at Sioux Falls, by the Western Town Lot Company, of Dubuque, Iowa. The people were driven out several times by the Indians, but returned as often, with dauntless American pertinacity. Unceasing troubles with the natives culminated in 1862 in the Sioux war, when the frontiers were ravaged for hundreds of miles, and all the Dakota settlers fled to Yankton. After the savages were thoroughly subjugated by Gen. Sibley's Minnesotians, in their brilliant campaign in eastern Dakota, and United-

STATISTICS.

Settled at	Sioux Falls.
Settled in	1857
Founded by	Iowans.
Admitted to the U. S.,	1889
Population in 1880,	98,268
White,	327,290
Colored,	1,518
American-born,	237,753
Males,	180,250
Females,	148,558
In 1890 (U. S. Census),	328,808
Population to the square mile,	4.28
Voting Population (1890),	96,765
Vote for Harrison (1892),	34,888
Vote for Cleveland (189.),	9,081
Net State Debt,	$871,600
Assessed Property,	$132,000,000
Area (square miles),	77,650
U. S. Representatives,	2
Militia (Disciplined),	769
Counties,	64
Post-Offices,	660
Railroads (miles),	2,717
Manufactured (yearly),	$5,682,748
Operatives,	2,422
Yearly Wages,	$1,098,418
Farm Land (in acres),	11,396,460
Farm-Land Values,	$70,000,000
Farm Products (yearly)	$22,047,279
Public Schools, Average.	
Daily Attendance,	54,400
Newspapers,	264
Latitude,	43° to 46° N.
Longitude,	96° 20′ to 104° W.
Temperature,	39° to 111°
Mean Temperature (Huron),	43°

TEN CHIEF PLACES AND THEIR POPULATIONS. (Census of 1890)

Sioux Falls,	10,177
Yankton,	3,670
Pierre,	3,235
Aberdeen,	3,182
Huron,	3,038
Watertown,	2,672
Lead City,	2,581
Deadwood,	2,366
Mitchell,	2,217
Rapid City,	2,128

THE BLACK HILLS, NEAR DEADWOOD.

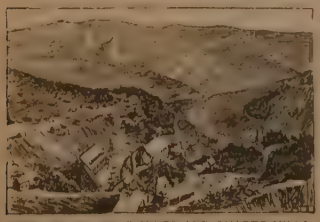
States garrisons studded the country, a great flood of immigration poured into the Territory, whose amazing crops of grain speedily astonished the western world. Yankton was the Territorial capital from 1862 until 1883, when the seat of government passed to Bismarck.

The Name Dakota means "Allied." The pet names for South Dakota are THE ARTESIAN STATE, from its unrivalled artesian wells; and THE COYOTE STATE, from an animal once abundant on its prairies.

The Governor (see also page 656) has been Arthur C. Mellette, 1889–93.

The Seal of South Dakota bears a river with a steamboat, and on the right a farmer at the plow, with a herd of cattle, and a field of corn. On the left stands a smelting furnace, and a range of hills. The motto is: UNDER GOD THE PEOPLE RULE.

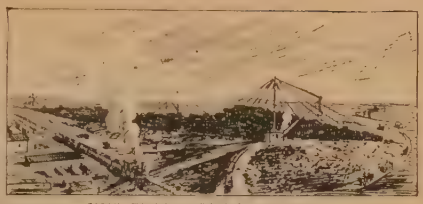
Descriptive.— South Dakota is separated from Minnesota and Iowa by the Big Stone and Traverse Lakes and the Big Sioux River; from Nebraska by the 43d parallel; from Wyoming and Montana by the 104th meridian; and from North Dakota by the seventh standard parallel. It is 225 by 360 miles in area, and larger than all New England. The southern boundary is on the parallel of Detroit, Boston, and Rome. The greater part of the State is a high undulating plain, cut by many rivers and streams, with the Black Hills in the southwest and many bright lakes in the east. The whole country was once covered by the continental glacier, succeeded by a great lake, both of which deposited here the ground-down drift and alluvial remnants of the mountains. The lake finally drained away through the Missouri, and left this imperial domain for the Indians and the buffalos. The alluvial soil is covered many inches deep with vegetable mould, from centuries of prairie-fires, and contains abundant saline matter, and the proper proportions of clay and sand for draining and pulverizing. These open and treeless lands, arable and fertile, and capable, by deep ploughing, of perpetual rejuvenation, lie waiting for the farmer. The subsoil is a strong and tenacious clay. Above this the country is overlaid with dark alluvial loam, which the analyses of the Department of Agriculture find to be rich in nitrogen and soluble silica and potash and organic matter, making an ideal soil for raising cereals. The Missouri Valley has rich bottom-lands, abounding in corn, small grain and live-stock, and now occupied by great numbers of farms and villages. The Big Sioux Valley presents much beauty of landscape, and raises corn and cattle and horses. The valley of the James River contains much rich and arable soil, made up of a dark vegetable loam, underlaid by marly clay, rich in phosphate of lime. The James is 500 miles long, bounded on either side by prairies extending to the remote horizon, well-watered, and containing many large and profitable wheat-farms. The valley abounds in powerful artesian wells, reaching an immense subterranean stream from 800 to 1,600 feet down, and affording water enough to run heavy machinery and supply the village-reservoirs. This is a part of the mysterious Dakota artesian basin, 500 miles wide, extending from Nebraska to Manitoba, and pronounced by Nettleton to be the greatest basin of the kind in the world.



TERRAVILLE: GOLD MINES AND QUARTZ MILLS.

Central Dakota covers the divide and prairies between the James and Missouri Rivers, with a rich and populous farming country. The Sioux Reservation lies west of the Missouri, and 11,000,000 acres of it were bought by the Government from the Indians, and thrown open to settlement in 1890. The price paid was $10,500,000. The country is a vast rolling prairie, covered with rough sod and sage-brush, and cut by small streams. A third of it lies within the Bad Lands. Farther westward the Black Hills, rich in minerals and

containing many fertile valleys, rise like sombre islands from the great plains.

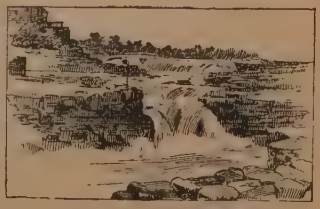

SIOUX FALLS: GRANITE QUARRIES.

Agriculture finds a home on 50,000 farms, valued at $70,000,000, and producing millions of dollars yearly. Corn has been raised to the amount of 22,000,000 bushels yearly, at from 25 to 100 bushels to the acre. It is of excellent quality, abounding in nitrogen and albuminoids, and far above the average grade of American corn. The wheat crop exceeds 17,000,000 bushels yearly; the oat crop, 12,000,000 bushels; the barley crop, 1,700,000 bushels; and the potato and flax crops, above 2,500,000 bushels each. The wild prairie-grasses yield 1,500,000 tons of hay yearly, and the tame grasses 120,000 tons. The cultivation of flax is an important local industry, and supports also large tow-mills and linseed-oil mills. It is raised almost entirely for the seed. The State has 386,000 swine, 527,000 cattle, 200,000 horses, and 158,000 sheep, including much fine blooded stock. The wool-clip reaches 5,000,000 pounds a year. Outside the Black Hills there are extensive cattle-ranges, formerly much used for stock from Colorado.

Climate.—The Dakotas, with a mean yearly temperature of 41½°, are warmer than Minnesota (38°) or New Hampshire (26½°), and have less snow (47.8 inches) than New York (55.7 inches) or New Hampshire (86 inches). They have 300 days in the year that are fair or clear. No other Northern State has fewer cloudy days. The singular dryness of the air makes a very low temperature in winter endurable, and gives a charm to the long autumnal seasons. The Chinook winds from the Pacific warm current have an appreciable influence in modifying the temperature. The terrific northerly gales of winter, laden with fine floating snow, are the most unfortunate the climatic of variations, and suffer merited reprobation under the name of "blizzards;" but fortunately they seldom occur.

JAMES-RIVER VALLEY: ARTESIAN WELL.

Minerals.—The Black Hills form a great ellipse, pointing northwest, with a granite central core, surrounded by gracefully curved and grassy sedimentary ridges, and sheltering many flowery and verdant valleys. They cover about 3,500 square miles, between the North and South Cheyenne Rivers, and culminate in Harney's Peak, 9,700 feet above the sea. The name of the range rises from the sombre appearance of the immense spruce and Norway-pine forests, as seen from the far-surrounding plains. The gold-mines in the Black Hills were discovered in 1874, when Gen. Custer's expedition reconnoitred that unexplored region. A wild rush of prospectors and miners entered the country, in spite of the United-States troops, who endeavored to expel them from this part of the great Sioux Reservation. The Sioux also resisted this invasion, and killed hundreds of the gold-hunters, until the hills were thrown open to settlement, in 1877. These mines have yielded $50,000,000 worth of gold and silver. After the placers gave out, the prospectors traced out the broad fissure veins in the hills, filled with low-grade native gold, in quartz, easily reduced by stamp-mills. The Homestake Combination covers an irregular belt of four miles long and 1,600 feet wide (near Lead City), forming the largest and most easily-worked mass of low-grade gold ore in the world. They employ 4,000 men, and have many miles of ditches, and a railway 27 miles long. Several other companies find profitable employment in this great treasure-house, "the Golconda of Dakota." Galena and Carbonate produce large quantities of silver and lead, and have smelters


SIOUX FALLS, BIG SIOUX RIVER.

and reduction-works to treat this refractory ore. Tin appears in the Black Hills in quantity sufficient to create several new Cornwalls, and over $1,000,000 has been sunk in attempts at its paying development, chiefly by the Harney's-Peak Company. The ore is a black cassiterite, embedded in mica-schist; and the deposits cover an area of 500 square miles, in a great semi-circle of 40 miles, around and northwest of Harney's Peak. Both lode-tin and stream-tin are found in enormous quantities, easily manipulated and milling freely. The product of Dakota tin has not yet amounted to much, but high hopes are entertained of future developments. The Black Hills contain saline springs, whose waters are evaporated for making salt; vast gypsum beds, used for plaster of Paris; mica, of which large sheets are exported; high-grade copper-ores, lying on the surface; lignite (or brown coal), in large seams; petroleum and natural gas; and many other valuable minerals. Here also are quarried white, red, and variegated sandstones, white and purple limestones, granite and marble, and valuable strata of whetstone and grindstone grits.

SIOUX FALLS.

The chief health-resort is at Hot Springs, in the Black Hills, 4,000 feet above the sea, where a large hotel and bath-houses accommodate visitors. The waters flow at a temperature of 96°, and are charged with electricity and minerals. For centuries this locality had been a favorite with the Sioux and Cheyennes, who held on to it until 1881. Big Stone Lake and Madison are also well-known places for the summer pleasuring of the Dakotans.

SIOUX FALLS: SCHOOL FOR DEAF MUTES.

At the eastern extremity of the State, at Sioux Falls, are found inexhaustible deposits of the so-called jasper, in red, pink, cherry, purple, peachblow, and gray tints. It is a variety of close-grained granite, or quartzite, hard enough to turn the sharpest tools, but easily cleaving by hammer-strokes, and forming a beautiful and indestructible building and paving material. It is quarried and polished by 1,000 men, in works equipped with the most modern and ingenious machinery, and spurs from the railways. A single company has sent away 10,000 car-loads of indestructible jasper paving-blocks; and great quantities of the stone are used in building and for monuments. The polishing-works here finish this rich material into table-tops and columns of a glassy smoothness, which are sold by Tiffany & Co., in New York. The exquisite chalcedony (or petrified wood) of Arizona is brought to these works by the car-load, and polished for decoration.

SIOUX FALLS: MINNEHAHA-COUNTY COURT HOUSE.

The Government consists of a governor and seven other executive officers, elected for two years; a legislature of not exceeding 45 senators and 135 representatives; and a Supreme Court of three justices, with circuit and county courts. The temporary capitol is at Pierre, on the Missouri.

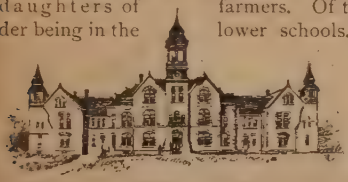
The Penitentiary is an imposing jasper structure on the high bluff north of Sioux Falls, built at a cost of $500,000, and famous for the skilful polishing of chalcedony, porphyry and other rare stones, done by the convicts. The Reform School is at Plankinton. The School for Deaf Mutes occupies several buildings on the heights southeast of Sioux Falls, and gives valuable technical instruction. The Hospital for the Insane has a farm of 640 acres, on high ground, near Yankton, and cost $250,000. The Soldiers' Home stands among the healthful and beautiful surroundings of Hot Springs, in the Black Hills.

The United-States military posts are Forts Bennett, Sully and Randall, on the Missouri, and Fort Meade in the Black Hills, their garrisons aggregating 600 soldiers.

SIOUX FALLS: PENITENTIARY.

The Pine-Ridge, Rosebud, Yankton, Cheyenne-River, Crow-Creek, and Sisseton Reservations contain 18,500 Sioux Indians and 500 Northern Cheyennes, under the care of their chiefs, United-States agents, native police and Catholic and Episcopal clergy. These denizens of the plains are yielding slowly to civilization. An Indian industrial school, maintained by the General Government, has been established at the capital city, Pierre, in which Indian children are taught the useful mechanical arts. The Sisseton Sioux have been allotted lands in severalty, and in 1892 the parts of their reservation not thus occupied were thrown open for settlement.

Education has always been accorded a prominent place in this purely American commonwealth, and flourishes under an efficient system. Illiteracy includes but 4.2 per cent. of the people, the general ratio among white Americans being 11.9. The normal schools occupy handsome buildings, one at Madison, in the pleasant eastern lake-country, and another at Spearfish, among the Black Hills. The University of South Dakota was opened in 1882, and has handsome jasper buildings at Vermillion, and 475 students, mainly sons and daughters of farmers. Of these 61 are in the collegiate department, the remainder being in the lower schools. Tuition is free for Dakota pupils. The Agricultural College at Brookings has four good buildings, 16 instructors, and 140 students of both sexes, many of whom support themselves by working on the college farm and in its industrial shops. The School of Mines has well-equipped laboratories at Rapid City, convenient to the gold and silver, iron and copper, tin and nickel, coal and oil, lead and antimony deposits of the Black Hills. Yankton College was opened by the Congregational churches, in 1882, and has a fine building of red jasper, trimmed with Iowa white stone. Another Congregational college has recently been opened at Redfield. Dakota University was founded by the Methodists, and occupies a high and far-viewing estate of 320 acres, near Mitchell. The main building is of jasper, in Venetian architecture. Sioux-Falls University, founded by the Baptists in 1883, has ten instructors and 120 students, and a large building of jasper, on a hill overlooking the city. Pierre University belongs to the Presbyterian synod and overlooks wide vistas of the Missouri Valley. It opened in 1883. The Presbyterians have another college at Groton. All-Saints' School (for girls) is at Sioux Falls, the see city of South Dakota, and has a handsome building and chapel of jasper, trimmed with pipe-stone. The Catholics have seminaries at Aberdeen, Deadwood, Sioux Falls, and other cities.


VERMILLION: UNIVERSITY OF SOUTH DAKOTA.

Upwards of $2,000,000 have been spent in building churches; and the State has 1,000 Sunday-schools.

Chief Cities.— Sioux Falls was laid out in 1857, and destroyed by the Sioux in 1862. In 1865 Fort Dakota arose here, on a military reservation six miles square; and when this was evacuated, in 1870, a new village sprang up, rising to 593 inhabitants in 1873. It is

WATERTOWN: HIGH SCHOOL.

BROOKINGS : AGRICULTURAL COLLEGE.

now the metropolis and gate-city of South Dakota, with large factories and quarries, a score of churches, and several colleges. The Big Sioux River falls here 90 feet within half a mile, sparkling clear, and dominated by a beautiful island. The predominant color of the city is red, from the red granite generally used in its buildings. Pierre, the capital, stands at the geographical centre of the State, near the site of old Fort Pierre, which was founded in 1829, and named for Pierre Chouteau of St. Louis, one of the early fur-traders.

Deadwood received its name from the miners, in 1875, because of the dead timber on the adjacent hills. The city was laid out in 1876, burned up in 1879, and washed away in 1883, but is still the distributing point and mining centre of the Black Hills, with a very large business. Deadwood is united to the East by three trunk railways, and has several narrow-gauge lines running to the mining-camps of the Black Hills. The city is Y-shaped, Whitewood Gulch forming the trunk and one prong, and Deadwood Gulch forming the other prong of the Y. The close-built business streets follow these ravines, and above, on the hill-sides, are the residences, commanding extensive views, as far as the snow-crowned Terry's Peak. Rapid City controls the trade of many camps and towns in the Black Hills, and is surrounded with coal and iron, tin and precious metals, sandstone and granite, marble and lime, and the grazing-grounds of 20,000 horses. It has been happily entitled "The Denver of South Dakota." Yankton, the old-time capital of all Dakota, stands on a line of chalk bluffs along the Missouri, not far from the inflowing of the James River. Aberdeen, on the James River, has risen since 1880, and possesses railways radiating in seven directions, and giving it a large jobbing trade. Watertown, on the Big Sioux, and near the pretty Lake Kampeska, is the distributing point for several counties, with wealthy banks and many public buildings and factories. Huron, on the James, is another lively little city, which came near being the capital of the State.

DEADWOOD.

HOT SPRINGS : SOLDIERS' HOME.

Railroads enter South Dakota from the eastward at a dozen points, and cover the eastern counties with their lines. They reach the Missouri River at half a dozen points, but none of them crosses it, because up to recently the land beyond belonged to the Sioux Indians, and could not be occupied. The Chicago & Northwestern, the Milwaukee, the Great Northern and other railway companies are represented here. The Black Hills are reached from extreme northwestern Nebraska by lines branching northward from the Fremont, Elkhorn & Missouri Valley and the Burlington & Missouri-River systems, both traversing almost the entire length of the Hills, and curving together at Deadwood. One or two of the railways will soon be extended westward from the Missouri River, straight away towards the Pacific Ocean. The James River (locally known as the Jim) is the longest unnavigable river in the United States. It extends from its source near Devil's Lake across part of North Dakota and all of South Dakota, bordered by an almost illimitable prairie, reaching to the horizon, and already fairly populated with industrious communities of farmers.

"Sea-like in billowy distance, far away
The half-broke prairies stretch on every hand;
How wide the circuit of their summer day
What measureless acres of primeval land,
Treeless and birdless, by no eyesight spanned."

MADISON : STATE NORMAL SCHOOL.

HISTORY.

Probably the first white people to look upon Tennessean soil were the Spanish cavaliers of De Soto's army, in 1541, reaching the Mississippi at the site of Memphis. La Salle built Fort Prud'homme, 140 years later, on the Fourth Chickasaw Bluff; and in 1714 the French erected Fort Assomption, on the same site; and later the Spanish stronghold of Fort San Ferdinando de Barrancas received a garrison of Dons here.

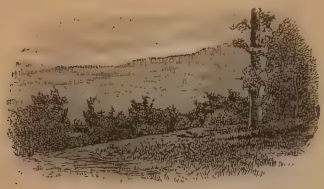
France claimed the territory of Tennessee, as a part of Louisiana; Spain claimed it as a part of Florida; and North Carolina extended over its entire area, according to the charter of Charles II. Equally indifferent to all these diplomacies, the Cherokees held the east and the Chickasaws the west, unconscious of their would-be European lords. In 1748 a party of Virginians discovered the Cumberland Mountains, Gap and River, which they named after the Duke of Cumberland, the merciless victor of Culloden. The North-Carolinians entered Tennessee as early as 1754, but they were hurled back across the mountains by hostile Indians. Two years later Fort Loudon was founded, on the Little Tennessee, with a red-coat garrison and twelve cannon, which in 1760 capitulated to a besieging force of Indians, the people being butchered or reduced to captivity. In 1761 a little army of Virginians and North-Carolinians, under Col. Grant, crossed the Alleghanies, and defeated the savages in several bloody battles, after which they sued for peace. About the year 1770 the strong tides of migration from Virginia and North Carolina began to flow into Tennessee, some through Cumberland Gap and along the river, and others down the Tennessee Valley and around the Cumberland Plateau. Traversing the mountain-passes on foot, with their household effects packed on horses, they occupied the great wilderness, abounding in timber and game. Settling along the Holston,

STATISTICS.

Settled at	Fort Loudon.
Settled in	1765
Founded by	North Carolinians.
Became a State,	1796
Population in 1860,	1,109,801
In 1870,	1,258,520
In 1880,	1,542,359
White,	1,138,831
Colored,	403,528
American-born,	1,525,657
Foreign-born,	16,702
Males,	769,277
Females,	773,082
In 1890 (U. S. Census),	1,767,518
White,	1,332,971
Colored,	434,300
Population to the square mile,	36.9
Voting Population,	330,305
Vote for Harrison (1888),	138,988
Vote for Cleveland (1888),	153,779
Net State Debt,	$14,938,608
Assessed Valuation of Property (1890),	$348,000,000
Area (square miles),	42,050
U. S. Representatives (1893),	10
Militia (Disciplined),	1,671
Counties,	96
Post-offices,	2,405
Railroads (miles),	2,752
Vessels,	86
Tonnage,	15,216
Manufactures (yearly),	$37,074,886
Operatives,	22,445
Yearly Wages,	$5,254,775
Farm Land (in acres),	20,666,915
Farm-Land Values,	$206,749,837
Farm Products (yearly)	$62,076,311
Public Schools, Average Daily Attendance,	308,969
Newspapers,	262
Latitude,	35° to 36°35′ N.
Longitude,	81°37′ to 90°15′ W.
Temperature,	—16° to 104°
Mean Temperature (Nashville),	58°

TEN CHIEF CITIES AND THEIR POPULATIONS. (Census of 1890.)

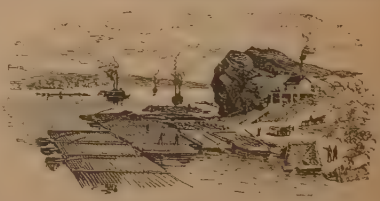
Nashville,	76,168
Memphis,	64,495
Chattanooga,	29,100
Knoxville,	22,535
Jackson,	10,039
Clarksville,	7,924
Columbia,	5,370
Johnson,	4,161
Murfreesboro,	3,730
Union City,	3,441


SEWANEE: VIEW FROM THE UNIVERSITY.

Watauga and Nolechucky, they inaugurated Virginian laws in the deep wilderness, and suffered many troubles with the Royal Government and the Indians. John Sevier organized the Watauga people and led them in the battle of King's Mountain, against the Tories and British; and afterwards was outlawed as Governor of Franklin. In 1779–80 a fleet of open boats made an astonishing voyage of 2,000 miles, from Fort Patrick Henry, on the Holston, down the Tennessee and the Ohio and up the Cumberland, to French Lick, where they founded Nashville. The commander of the fleet was John Donelson, whose daughter Rachel married Andrew Jackson.

The history of the region for the next 60 years deals with the expulsion of the Cherokees and Chickasaws, the slow advance of internal improvements, the vigorous politics of the Polk and Harrison and other campaigns, and the settlement of the West. The bread of the pioneers was either johnny (journey) cake or ash-cake; the butter, bear's fat or goose-fat; the coffee, a decoction of parched rye or dried beans. The people wore homespun and buckskin, the women with huge calico bonnets, the men with raccoon-skin caps, and both with buckskin moccasins. Their homes were log-huts; their churches, barns; their laundries, the woodland springs; and their forts, palisades running around the cabins.

In 1784 North Carolina ceded Tennessee to the United States, and a year later repealed the Act of Cession. The transmontane counties then seceded, and later formed the State of Franklin; but Congress ignored its delegates. In 1787 the young State returned to its allegiance to North Carolina. In 1790 it was ceded to the Government, and became part of the Territory of the United States South of the Ohio River.


THE TENNESSEE RIVER.

In 1861, the Tennesseans refused to summon a convention to consider seceding from the Union; but three months later they voted, by 57,675 majority, to leave the Republic. Within less than a year a great part of the State was restored to the Federal authority, and Andrew Johnson became military governor. Grant and Foote took Fort Henry (on the Tennessee) and Fort Donelson (on the Cumberland), with 15,000 prisoners, after a short but severe campaign, and occupied Nashville. Thence Grant advanced with 40,000 men to Shiloh, on the Tennessee, where he was surprised and beaten by Johnston's Confederate army; but on the arrival of Buell, with the Army of the Ohio, a day later, he re-won the bloody field, the losses on both sides reaching 23,000 men. By June the entire Mississippi-River coast was free, the Federal fleet having utterly destroyed the Confederate gunboats off Memphis, and occupied the city with a permanent garrison. January 4, 1863, Bragg's army was driven from Murfreesboro by Rosecrans's Nationals, after a four days' battle, in which 22,000 men were lost on both sides. Rosecrans pushed the enemy out of Shelbyville and Chattanooga, but at Chickamauga Bragg turned at bay, and terribly defeated the Federals (35,000 men being killed or wounded on both sides), whom he besieged in Chattanooga. In October, Grant, Sherman, Thomas, Hooker and Sheridan broke out of their beleaguerment, and in the magnificent battles of Chattanooga, Lookout Mountain and Missionary Ridge drove the Confederates into Georgia. When Sherman's great army moved from Atlanta toward the sea, Hood's Confederate army dashed into Tennessee, driving

ROCK CITY.

Schofield before it, but losing 6,000 men in front of his lines at Franklin. With 40,000 men Hood kept on to Nashville, where he encountered Thomas's Federal army, and suffered a complete overthrow, losing 53 guns and 4,500 prisoners, besides many thousand killed and wounded. In the summer of 1863 Burnside led the Army of the Ohio down the East-Tennessee Valley, and occupied Knoxville, which he defended against the heroic assaults of Longstreet's Southern infantry. The people of this mountain-land had remained true to the Union, and contributed 30,000 soldiers to the Federal army. Upwards of 30 counties of East Tennessee refused to join in the Secession movement.

THE HERMITAGE: ANDREW JACKSON'S RESIDENCE.

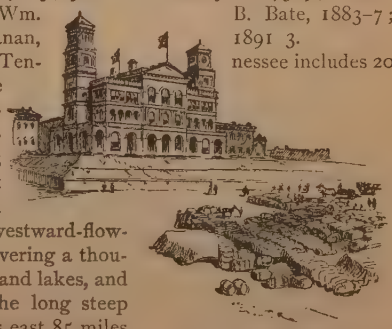
The Name Tennessee is a Cherokee word, meaning "A Curved Spoon," or "A Bend in the River." It was derived from Tanasse, the chief village of the Cherokee tribe, which stood on the shore of the river. The name was applied upon motion of Andrew Jackson, although it had previously been given to the country by popular usage. The pet name of Tennessee is THE VOLUNTEER STATE, on account of the military spirit of the people. The corn and pork product of Tennessee reached such great proportions between 1800 and 1840, that the land received the designation (now obsolete) of THE HOG AND HOMINY STATE. Tennessee has been called THE MOTHER OF SOUTHWESTERN STATESMEN, having given the Republic three Presidents, Jackson, Polk and Johnson, besides Thomas H. Benton, Hugh L. White, John Bell, Felix Grundy, David Crockett, Admiral Farragut, Houston of Texas, Gwin of California, Watterson of Kentucky, Sevier and Garland of Arkansas, Claiborne of Louisiana, Reagan of Texas and Morgan of Alabama.

JACKSON'S TOMB.

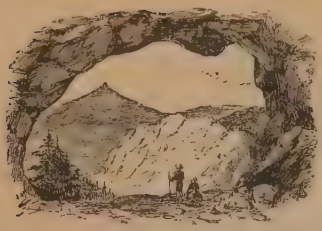
The Arms of Tennessee were adopted in 1796, and bear a plow, a sheaf of wheat, and a stalk of cotton, with the word AGRICULTURE beneath. Below this is a laden river-barge, with the word COMMERCE.

The Governors of Tennessee have been: John Sevier, 1796–1801 and 1803–9; Archibald Roane, 1801–3; Wm. Blount, 1809–15; Jos. McMinn, 1815–21; Wm. Carroll, 1821–7 and 1829–35; Sam. Houston, 1827–9; Newton Cannon, 1835–9; Jas. K. Polk, 1839–41; Jas. C. Jones, 1841–5; Aaron V. Brown, 1845–7; Neil S. Brown, 1847–9; Wm. Trousdale, 1849–51; Wm. B. Campbell, 1851–3; Andrew Johnson, 1853–7; Isham G. Harris, 1857–61; Andrew Johnson (provisional) 1861–4; Wm. G. Brownlow, 1865–9; DeWitt C. Senter, 1869–71; John C. Brown, 1871–5; Jas. D. Porter, Jr., 1875–9; Albert S. Marks, 1879–81; Alvin Hawkins, 1881–3; Wm. B. Bate, 1883–7; Robert L. Taylor, 1887–91; and John P. Buchanan, 1891 3.

Description.—The civil division of West Tennessee includes 20 counties, and extends from the Mississippi to the Tennessee. Middle Tennessee, with 40 counties, extends thence to the centre of the Cumberland Plateau; and East Tennessee's 33 counties cover the remainder of the State. West Tennessee rises gently from the Mississippi, in long and level lowlands, traversed by sluggish westward-flowing rivers. The alluvial Mississippi bottoms, covering a thousand square miles with their magnificent forests and lakes, and cedar and cypress morasses, reach eastward to the long steep bluffs of the great undulating plateau which runs east 85 miles to the Tennessee, and covers 9,000 square miles. Back of the



MEMPHIS: CUSTOM-HOUSE, POST-OFFICE AND LEVEE.



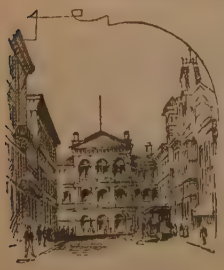
ALUM CAVE: GREAT SMOKY MOUNTAINS.

rivers are leagues of rich black mould, with wonderful harvests of cotton, tobacco and grain. Farther east, beyond the Tennessee Valley (which is ten miles wide), opens the great elliptical central valley, like the bed of a drained lake, surrounded by the highland rim, 300 feet high, and covering 5,450 square miles with fields of grain, cotton and tobacco, and the largest red-cedar forests in America. This is called the Garden of Tennessee, with every kind of charming scenery, an unusual variety and opulence of products, and vast herds of valuable domestic animals, fattened on the blue grass. Next eastward comes the great Cumberland Plateau, a thousand feet above the Tennessee, and covering 5,000 square miles, rich in coal and limestone, with an abrupt and formidable rocky rampart on the east, and a broken and jagged western slope, cut into by deep coves. One of the chief towns is Rugby, founded in 1880 by Thomas Hughes, the author of *Tom Brown's School Days*, and settled partly by Englishmen and Northerners. Beyond the forest-filled East-Tennessee Valley, deep channelled in the dolomite and sandstone, comes the mountain-land of East Tennessee, from seven to twenty-eight miles wide. On one side the Chilhowee range lifts its gray peaks over 5,000 feet into the sky, and on the other side tower the Great Smoky and Bald ranges. The East-Tennessee Valley covers 9,200 square miles, between the Alleghanies and the Cumberland Plateau; and its final frontier toward Carolina is formed by the Great Smoky and the Unaka Mountains, rising beyond 6,000 feet, and bearing on their bare brows the vegetation of Canada. The wild country south and southeast of Knoxville has been made famous by Miss Murfree's stories, *In the Tennessee Mountains*. There Tuckaleechee Cove and Cade's Cove lead inward to the Great Smoky peaks, culminating at the Siler Bald (5,600 feet high), Clingman's Dome (6,660 feet), and Old Smoky (Mt. Guyot) 6,636 feet. The mountains are covered with valuable forests of pine and hemlock, chestnut and black walnut, growing to immense size, and producing large exportations of naval stores and lumber.

NASHVILLE: HOME AND TOMB OF JAMES K. POLK.

The caverns of the Cumberland Mountains are many miles in extent, and contain powerful subterranean streams, bones of extinct animals, and deposits of nitre, much of which was removed during the War of 1812. Elsewhere in Tennessee are the mysterious sink-holes, hopper-shaped cavities on the surface, through which the waters drain down into subterranean streams.

The Tennessee River is formed four miles above Knoxville, by the confluence of the French Broad, from the mountain-land of North Carolina, and the Holston from Virginia. It is 650 miles long, traversing the valley of East Tennessee to Chattanooga, 194 miles, and then cutting through Walden's Ridge and skirting the Sequatchie Valley, and sweeping around through Alabama, whence it turns northward and again crosses Tennessee, entering the Ohio at Paducah. It drains 41,000 square miles, falling 2,000 feet, and receiving many important tributaries. It is navigated by steamboats from the Ohio far into Alabama, 260 miles, and from above the Muscle Shoals to Knoxville. Several steamboats ply on the river between Chattanooga, Kingston and Loudon (142 miles), bearing large freights; and hundreds of laden flat-



MEMPHIS: MADISON STREET.

boats from Virginia and North Carolina come out of the French Broad, Watauga, Hiawassee and other streams, bearing produce to Knoxville and Loudon. Steamboats ascend the Clinch and Emory Rivers to Harriman, one of the new iron-making cities. The commerce of the Tennessee exceeds $5,000,000 a year, mainly in lumber and grain, ore and live-stock, forage and merchandise, and other valuable products of the mountain-land and the valley counties. The Holston, 350 miles long, is formed 180 miles above Knoxville by the union of the North and South Forks. The French Broad River has 121 miles in Tennessee, with a navigable channel of 90 miles, up to Leadvale, at the mouth of the Nolechucky River. The Little Tennessee flows down from the Blue Ridge 134 miles to the Tennessee, with 13 miles navigable. The Hiawassee, of equal length, comes from the Blue Ridge of Georgia, and steamboats ascend its course to Charleston, 20 miles. The Clinch River is born in Virginia, and steamboats go up to Clinton, for 70 of its 400 miles. The Cumberland River has most of its navigable waters in Tennessee, although its source and mouth are in Kentucky. Steamboats ascend 192 miles, from Smithland on the Ohio to Nashville, during eight months; and for a briefer time they can ascend to Point Burnside, 517 miles from the Ohio. The entire length of the river is 740 miles, and there are several navigable tributaries. The Mississippi River pours its great navigable floods along the entire western frontier of Tennessee for 160 miles. Its chief tributaries are the Big Hatchie, formerly navigable 240 miles, as far as Bolivar; the Wolf, emptying at Memphis; and the Forked Deer, which has been ascended by steamboats as far as Jackson, 195 miles. Reelfoot Lake, in the northwest, was formed during the great earthquakes of 1811, and has a length of 17 miles.

CHATTANOOGA: CUSTOM-HOUSE AND POST-OFFICE.

MEMPHIS: COTTON EXCHANGE.

The Climate is generally salubrious, except among the swamps of the west. The mountain country is widely famous for the purity of its air, as well as the singular beauty of its scenery. The mean yearly temperature averages 59° in the west, 58° in Middle Tennessee, and 57° on the mountains. The Cumberland Plateau has for many years been much resorted to in summer on account of its delightful climate and scenery, cool nights and bracing air. Most of the hotels and cottage-colonies are near the cliff-bound edges of the table-land.

The Farm-Crops include yearly 80,000,000 bushels of corn, 9,000,000 of wheat, 8,000,000 of oats, and 2,500,000 of potatoes, with 320,000 tons of hay. Tennessee has produced as high as 350,000 bales of cotton in a year, most of which comes from the southwest, and the central region south of Nashville. In tobacco, Tennessee stands next to Kentucky and Virginia, producing from 25,000,000 to 40,000,000 pounds yearly. The counties north of the Cumberland cultivate a rich, strong and gummy tobacco, largely exported to England and Africa. The northwestern counties raise a silky, mild and light-colored tobacco. East Tennessee's output is mild and without much nicotine. Large quantities of stemmed tobacco are exported to Italy and Austria, France and Spain, to be made up in the government factories. Peanuts are raised in the west, and as many as 650,000 bushels have been sent out in a single year. 5,000,000 pounds

NASHVILLE: CITY HALL AND COURT-HOUSE.

of berries are raised yearly, with 7,000,000 pounds of apples, peaches and plums; and 1,000,000 gallons of spirits are distilled. Tennessee has above 3,600,000 head of live-stock, of which 1,900,000 are hogs, with 800,000 cattle and 480,000 horses and mules. In 1840 this was the foremost State in corn; in 1850, in growing hogs; and in 1860, in mules.

"Belle Meade" is the name of the most notable stock-farm for thoroughbred running horses in this country. It is a baronial estate, five miles from Nashville, Tenn., founded nearly 100 years ago by John Harding. He was succeeded by his son, Gen. W. G. Harding, and he by his son-in-law, Gen. W. H. Jackson, the present proprietor. Gen. Harding, who was a great friend of "Old Hickory" (Gen. Andrew Jackson), imported some of the finest-bred stallions from Europe to improve his stock, and the annual sales of thoroughbred yearlings at this famous nursery are important events in turf history. From 1875

NASHVILLE: "BELLE MEADE"; GEN. WM. H. JACKSON.

to 1891 inclusive, 636 yearlings have been sold at public auction, to the highest responsible bidders, without by-bidding, for $427,980, which yearlings won for their owners no less than $2,000,515 in stakes and purses. This is truly a grand showing, and unparalleled by any public breeding establishment in the world. When the representatives of the French Government, Baron Favérot and Capt. De la Chére, were sent to this country to inspect the breeding establishments and describe every variety of horse, in their report (of 600 pages), they stated that the best thoroughbred horses they found were at Belle Meade; adding: "We saw the finest crop of yearlings there that we had ever seen."

The estate covers 5,300 acres, half of it heavy timber cleared of undergrowth and sowed in blue grass, and the rest under cultivation. It is well watered by bold springs, and the water is filtered for the stock. There is also a deer park of 500 acres, where from 250 to 300 deer are kept, furnishing venison, and pleasant excitement in the chase. The owners of Belle Meade paid about $90,000 for Enquirer, Luke Blackburn, Iroquois, Imported Great Tom, Bramble, and Inspector B. (the stallions now in use); and under noble old trees are the honored graves of Vandal, Jack Malone (one of the best sons of Lexington), Imported Priam, Imported Bonnie Scotland, and other famous kings of the turf. All distinguished visitors to Nashville drive out the smooth turnpike to Belle Meade, where they receive delightful entertainment in one of the fairest regions of Tennessee.

Minerals.—The iron industries of Chattanooga and Nashville are well-known, and new towns are springing up along Walden's Ridge and the Sequatchie Valley. Among these are Dayton, with its railway and great blast-furnaces; Rockwood, on the Tennessee, with an

iron company capitalized at $1,000,000; Bristol, on the Virginian border; and Harriman, with abundant high-grade soft ore, surrounded with coking coal. In 1880 Tennessee produced 71,000 tons of pig-iron, and in 1889 the output had risen to 473,000.

SOUTHERN IRON CO.: A TYPICAL FURNACE.

The Southern Iron Company, of Nashville, was organized in 1889, to consolidate the interests of many important and rapidly developing establishments, in order to obviate ruinous competition, and to avert the danger of an over-supply of iron. It absorbed several large iron and steel companies in Tennessee and Alabama, and became possessed of a number of active blast-furnaces. Among the valuable properties thus acquired were the celebrated Roane Steel Mills, and many other valuable plants. Great tact and energy were shown by the officers of the Southern Iron Company in improving their new acquisitions, and placing them in the most efficient working order, thereby securing a commanding position among the manufacturing corporations of America. Its leading specialty is the manufacture of charcoal-iron for car-wheels and other purposes. In 1890 the company opened the great steel-mill at Chattanooga, for the making of steel for rails, etc. The capital of the Southern Iron Company is $6,000,000; and its operations cover a vast area of the iron-producing States of the South. From its central offices at Nashville go forth the orders which exemplify its wise and cautious policy, and there are held the councils by which the future conduct of many thousands of men are arranged for. Here are also received the orders for Southern iron and steel and their products, coming from all parts of the country.

The coal-field, which extends from Pennsylvania into Alabama, occupies 5,000 square miles of the Cumberland Plateau, and is mined to the amount of 2,000,000 tons yearly. The Sewanee Mines employ 600 men; and there are large mines in the vicinity of Knoxville, Chattanooga and elsewhere. Copper is mined in Polk County, the works employing 1,000 men, and producing great quantities of ingot copper. Lead mines are worked in Bradley, Washington and Monroe Counties.

TENNESSEE PRODUCERS' MARBLE CO.

The State abounds in marble quarries, producing Parian white, red, yellow, black, fawn-colored, gray, blue, breccia, red, variegated, chocolate, claret, conglomerate and many other varieties. The magnificent staircases of the Capitol at Washington were made of the light mottled strawberry marble of the Holston River. The Tennessee marbles are among the finest in the world, being free from iron and sulphur, and hence not likely to tarnish or stain. Tennessee marble is gaining an enviable reputation, and is largely shipped to all parts of the country. The most popular of these marbles is the variegated, or combination of red and white. The white marble used in the Knoxville Custom House is claimed to be the finest building stone in the country. When polished it does not present a glaring white surface, but a delicate pink is evident. Knoxville is the centre of the marble section. There are 28 quarries; and the city contains three mills for sawing and cutting the marble into shape. The output is governed by the Tennessee Producers' Marble

QUARRYING MARBLE IN TENNESSEE.

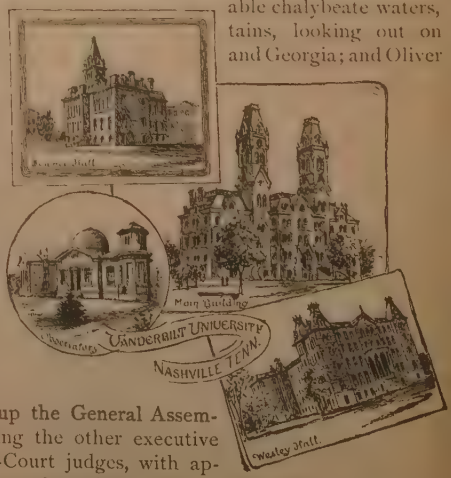
Company, incorporated in 1889, and now with a capital of $200,000, and operating 13 quarries. It is one of the largest concerns of its kind in the State; and the main office is at Knoxville. These marbles are to be found in many noted buildings, including the Capitol at Washington and the State Capitol of New York. The output last year amounted to 270,000 tons, which was sent chiefly to New York, Boston, Baltimore and Philadelphia. There is no more beautiful building material in the world than these exquisite marbles of Tennessee, whose use is rapidly extending everywhere.

SEWANEE: UNIVERSITY OF THE SOUTH.

There are several large limestone quarries near Nashville. Tennessee also has vast deposits of potter's clay, fire-clay and kaolin, which have given rise to the potteries at Knoxville, Nashville and Memphis. Other treasures of the earth are the lithographic stone of McMinn; the beautiful red and gray granites of Carter; the unakite, or green granite, of the Unaka Mountains; the millstones of Claiborne; the saltpetre and Epsom salts of the caverns; the alum and copperas of the middle counties; the petroleum of Spring Creek; the hydraulic rock of Hardin; the manganese of East Tennessee; the asbestos of Cocke; the bluestone and iron pyrites of Ducktown; and the baryta (or spar) of Greene and Carter. The mineral springs are famous for their variety and virtue, and pour out from the high crests of the Smokies, as well as along the Cumberland Plateau. They include the Beersheba chalybeate waters, on the Cumberland Plateau; the Montvale calcic-chalybeate springs, in the Chilhowee Mountains; the Rhea Springs, in East Tennessee, amid the pure dry air of the mountains; Haymond's Springs, with valuable chalybeate waters, 1,700 feet high on the Cumberland Mountains, looking out on the far-away blue ranges of North Carolina and Georgia; and Oliver Springs, near Walden's Ridge, with chalybeate, red and white sulphur and other medicinal waters. The Tate Epsom Spring, in a pleasant valley near the Clinch Mountains, has a great modern hotel, with abundant and strong laxative and tonic waters, efficaceous in curing dyspepsia, and other diseases. The Red Boiling Springs in Macon County, and the Hurricane Springs in Franklin County, are well known, and have their quotas of summer-guests, seeking pleasure and health.

KNOXVILLE: UNIVERSITY OF TENNESSEE.

NASHVILLE: PEABODY NORMAL COLLEGE.



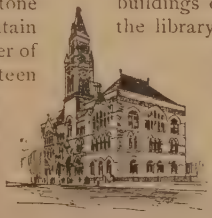
Government.—The governor is elected for two years; and so also are the 33 senators and 99 representatives who make up the General Assembly, meeting every other year, and choosing the other executive officers. There are five elective Supreme-Court judges, with appellate jurisdiction; eleven elective eight-year chancellors, with chancery courts; 14 circuit courts, for common-law cases; and the county criminal courts, the magistrates assembling four times yearly at the county-seat. The State House was built in 1853, of a beautiful

Tennessee fossiliferous limestone, at a cost of $1,000,000, on Capitol Hill, overlooking Nashville and the valley. It contains the State library of 30,000 volumes, and an interesting gallery of portraits. The State Hospital for the Insane, six miles from Nashville, has 400 inmates. The Tennessee School for the Deaf and Dumb, at Knoxville, has 115 students. The State Penitentiary at Nashville is run on the private-lease system.

NASHVILLE: FISK UNIVERSITY, JUBILEE HALL.

FISK UNIVERSITY: LIVINGSTONE HALL.

Common Schools existed before the war, for white children only, but now all children between six and 21 are entitled to free education. The University of the South was designed by Bishop Leonidas Polk of Louisiana, for a great school of learning. The bishops assembled in 1857, and acquired 10,000 acres of land for the university domain. The Secession War stopped the scheme midway; but after that vast tragedy had ended, the Church renewed its design, and large funds were raised for it in England, after the Lambeth Congress of 1867. In 1868 the university went into operation, on the noble plateau of Sewanee, 2,100 feet high on the Cumberland Mountains, amid great forests and crystal streams, and in a remarkably bracing and healthy climate. The stone buildings of Hodgson Hall and St.-Luke's Hall date from 1878–9, and contain the library (24,000 volumes) and the theological school. The beautiful tower of Convocation Hall recalls the Magdalen Tower, at Oxford. Fourteen Southern dioceses contribute to the support of this noble institution, which has 30 instructors and 300 students. There are 154 in the academic department, 20 in the theological school, and 116 in the grammar-school. The younger students are uniformed, and drilled by a United-States officer.



NASHVILLE: POST-OFFICE.

The University of Tennessee received its incorporation in the year 1794, and was opened in 1807, and occupied for military purposes from 1862 to 1866. In 1869 it received the agricultural-college fund, and became also the State Agricultural and Mechanical College, with classical, mechanical and agricultural courses, and a model stock-farm of 275 acres. The students are uniformed and drilled, and under military discipline. The buildings crown a far-viewing hill near Knoxville. Its medical and dental departments are at Nashville, with full faculties and large classes, numbering nearly 300 students.

The University of Nashville was organized as an academy in 1785, and from 1826 (when it became a university) to 1850, under Dr. Philip Lindsley, held high rank as a classical school. In 1875 its trustees and the trustees of the Peabody Education Fund converted the literary department into the now-famous Peabody Normal College, supported by the fund, the State of Tennessee, and the University, and educating 400 young men and women to be teachers. The medical department of the University was united with that of Vanderbilt University in 1875, the 230 scholars of the joint school occupying the buildings of the former. The Montgomery Bell Academy is a classical school, under the University. The Normal College occupies an ancient and ivy-clad buttressed stone building.

NASHVILLE: ROGER-WILLIAMS UNIVERSITY.

Vanderbilt University was chartered in 1872, and endowed by Commodore Vanderbilt with $1,000,000; and is conducted by the M. E. Church. It occupies a park-like domain of 71 acres, on the high hills near Nashville, and has extensive modern equipments and noble buildings. In University Hall are the chemical and pharmaceutical, academic and law schools, and the library (16,000 volumes), chapel and museums. In Science Hall are the engineering school, the forge and machinery rooms, and geological and natural-history cabinets. Wesley Hall has the theological department, chapel and refectory. There is also an observatory and a gymnasium. The university has 70 instructors and over 600 students; 150 academic, 50 biblical, 40 in law, 230 medical, 100 dental, 30 pharmaceutical and 50 in engineering.

Cumberland University, founded in 1842 by the General Assembly of the Cumberland Presbyterian Church, is at Lebanon, and has 113 students, besides 57 in law, 37 in theology and 110 preparatory. Cumberland is steadily regaining the prominent position which it held before the war, when over 500 students thronged its halls. The U. S. Grant University is a Methodist institution, formed by the consolidation of the Chattanooga and Grant Memorial Universities in 1889. The academic, theological and technological departments are at Athens; the academic, collegiate, law and medical departments at Chattanooga. There are 452 students, about 70 of whom are collegiate. The Southwestern Presbyterian University (130 students) was founded at Clarksville in 1874; the Southwestern Baptist University (130), at Jackson in 1874; King College (66), by the Presbyterians at Bristol in 1869; Hiwassee College, by the Methodists in 1849; Bethel College (303), by the Cumberland Presbyterians at McKenzie in 1847; Maryville College (222) and Tusculum College (30), by the Presbyterians in 1819 and 1794; Carson College (29), in 1849; and Burritt College by the Christians at Spencer in 1850.

MEMPHIS: TENNESSEE CLUB.

Nashville is often called "the Athens of the South," and besides its colleges for whites, it is the foremost seat of education for the African race in the world, having several great institutions for colored students.

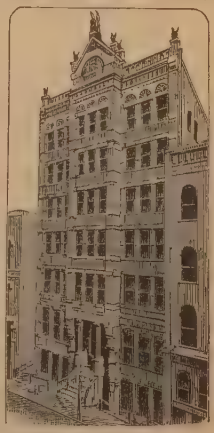
Roger-Williams University was founded at Nashville in 1864, by the Baptists, for colored youths, and has 284 students, including 247 normals and 26 in theology. It possesses several buildings on a domain of 30 acres adjoining Vanderbilt University. Fisk University at Nashville dates from 1866, and is one of the foremost schools for educating the colored race. It is Congregational in polity, and a foundation of the American Missionary Association. There are 400 students in all departments, normal, academic, industrial and musical. Jubilee Hall and Livingstone Hall are noble and commodious buildings, in a park of 25 acres. In 1866, the Methodist Episcopal Church founded at Nashville the Central Tennessee College, which has 40 instructors and 600 students, in preparatory, college, scientific, medical, dental, pharmaceutical, theological, law and industrial courses, and a training-school for missionaries to Africa.

National.—For some years a navy-yard was kept up at Memphis, but it was abandoned in 1853. In 1887 Congress ordered the establishment of a National Arsenal at Columbia, and its construction began in 1890. Some measure of the preciousness of Tennessee soil to the Republic may be seen from the National cemeteries here: Chattanooga, with 13,007 graves; Fort Donelson, 669; Knoxville, 3,157; Memphis, 13,981; Nashville, 16,534; Shiloh, 3,596; and Stone's River, 6,145.

Chief Cities.—Nashville rests in the heart of the great central basin, with six converging railways and the navigable Cumberland River, 66 churches, several universities and colleges, imposing public buildings, electric cars, water-works, and efficient fire and police departments. It is the foremost city in the world for manufacturing hard-wood lumber, the largest flour-milling city in the South, and the second jobbing city in the South. Its incorporated companies represent a capital of $90,000,000. The Watkins Institute

contains the Historical Society, city library and art-school. There are 9,000 children in the public schools, and a great many others in the 28 private seminaries.

Among the conspicuous edifices of Nashville, which give a metropolitan character to the chief city of Tennessee, is the fine Baxter Court, the tallest office building in the State, and admirably situated in the heart of the business district. A part of this towering pile of masonry is used for a hotel, on the American and European plans; and the rest is chiefly devoted to offices for lawyers, where the legal luminaries of the Tennessee bar find a local habitation during their hours of labor and study. The topmost floor contains a finely appointed and extensive law library, specially for the convenience of the tenants, but often consulted by lawyers resident or visiting in the city. The projector and owner of this architectural ornament of Nashville is the Hon. Jere Baxter, the son of Judge N. Baxter. Although yet a young man, he has taken an active part in developing the railroad and industrial and agricultural activities of his State, and is prominently mentioned as a candidate for the Governorship. Mr. Baxter's beautiful estate, Maplewood, seven miles from Nashville, is one of the famous stock-farms of Tennessee.

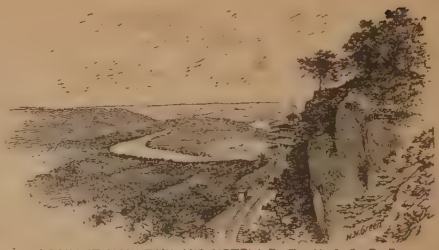

NASHVILLE: BAXTER COURT.

The erection of the Maxwell House at Nashville was begun just before the war. The walls were built and the roof put on, and when hostilities began its completion was stopped. When Nashville was occupied by the Union troops, the building was used as a barrack. The house was completed and opened in 1869, by John Overton. In 1880 it passed into the hands of the Maxwell-House Company, and has ever since been successfully managed. It contains over 250 rooms, and is the largest and best hotel in Tennessee, and the political headquarters in the State for all parties. Many distinguished people have stopped there — Generals Hooker, Halleck, Custer and Forrest; Presidents Andrew Johnson, R. B. Hayes, and Grover Cleveland; Senators Montgomery Blair, John Sherman, Evarts, Bayard, Randall and Schurz; and also Neilson, Patti, Abbott, Langtry, Booth, Barrett, Forrest, Mario and Brignoli. The successive Governors of the State have stopped there without an exception since the house was opened. The Maxwell is kept up to the demands of the city, and is carefully renovated and remodelled from time to time. In 1890 more than $50,000 were expended on the house, so as to make it the most acceptable hotel in this part of the country. It is five stories high, and occupies a space of 225 by 200 feet. The Maxwell is also the most conveniently located hotel in Nashville.

NASHVILLE: MAXWELL HOUSE.

Memphis stands on the Fourth Chickasaw Bluff, its wide esplanade overlooking the Mississippi River, with ten converging railways and 14 steamboat lines, an enormous wholesale trade and cotton export, and cotton-seed-oil mills. It is the most important point between St. Louis and New Orleans, and in spite of past pestilence and municipal bankruptcy, has developed into a great city. The broad river that lapses against its sandstone levee is very deep and free from ice. The costly railway bridge now being built here across the Mississippi River will give Memphis a vast Southwestern trade. The city has 10,000 workmen in its factories. It does a grocery business of $25,000,000 a year, and is a chief distributing point for shoes and hardware. There are 1,000 lumber-mills in the Memphis district, with an output of 100,000,000 feet a year. Knoxville, "The Queen City of the Mountains," and once the capital of Tennessee, is beautifully situated on the hills over the upper Tennessee River, with valuable railway connections, and a country trade of $25,000,000 a year. It has 35

churches, two colleges, a Government building of marble, a handsome public library, and large foundries, cotton-mills, car-works and zinc-works. The remains of John Sevier, the first governor of Tennessee, were removed from North Alabama in 1889, and buried at Knoxville, with imposing ceremonies. Knoxville is the literary, commercial and political metropolis of East Tennessee, and from its throne of hills in the centre of the valley looks southward to the magnificent line of the Smoky Mountains. It was the home of Jackson and Blount, of John Sevier and David Crockett, of Parson Brownlow and Horace Maynard; and cherishes the memories of three perilous sieges and assaults by hostile armies. Bristol, on the Virginian frontier, also deals largely in tobacco. Columbia has several mills, and an environment of stock-farms. Jackson, in West Tennessee, is a famous cotton-market, with half-a-dozen factories. The country around Murfreesboro is prolific in cotton and fruit. Lebanon and Shelbyville are well-known markets for mules. Chattanooga arose in 1836, at the intersection of the inter-state wagon-roads through the mountains, and is now the converging point of nine railways, and an important port on the Tennessee River, being only 34 miles farther from the Gulf of Mexico (by water), than Cincinnati. There are 22 coal-mines and 17 iron-furnaces in the district, producing yearly 1,250,000 tons of coal, and 2,400 coke-ovens. The first Bessemer steel in the South was made here, and the Roane Works have a capacity of 250 tons daily. The city has 152 factories, employing 8,500 persons and producing $11,000,000 worth of goods yearly. It also enjoys a large trade in grain and lumber.



LOOKOUT MOUNTAIN AND HOTEL: E. T., V. & G. R. R.

LOOKOUT MOUNTAIN AND TENNESSEE RIVER.

Rising 1,700 feet above the Tennessee River, the world-famed Lookout Mountain lifts its noble head, from which seven States may be seen. The natural panorama is remarkable, and travelers who have journeyed on both sides of the water say that the views from Lookout Point are without a peer. To the natural attractions are added memories of historic importance. The mountain and its surroundings were the scene of some of the greatest struggles of the Civil War. These sights are now easily accessible to the tourist, owing to the completion of the Chattanooga & Lookout-Mountain Railway, a standard broad-gauge road, operating the best of rolling-stock. Every train has with it one or two Pullman coaches. The length of the road from Chattanooga to the top of the mountain is ten miles. The line traverses some of the better suburbs of the city, and beginning the ascent passes the old Cravens house, which was occupied by General Walthall as his headquarters during the battle. Following the trend of the mountain, the train passes the various points of interest, including the old Confederate fort, which is still standing. The line ends at Lookout Point, 1,700 feet above the sea level. Every precaution against accident has been taken. The track is heavily ballasted with stone, and laid with the best 60-pound steel rails. The engines are equipped with Westinghouse and Eames automatic brakes. At the end

LOOKOUT MOUNTAIN; THE LOOKOUT INN.

of the road and on the top of the mountain is the Lookout Inn, one of the best hotels in the South, and in fact one of the finest resorts in America. The building is five stories high, and including its two extensive wings, it is 365 feet in length. It is an attractive and substantial brick and stone structure, designed by Sully & Toledano. In the centre is a lofty tower, at the top of which rises an observatory, whence may be had the finest view from the mountain. Verandas extend entirely around the building. The hotel has 600 rooms, and with the annexed cottages can accommodate 1,000 guests. The grand hall is 50 by 80 feet; and the dining-room, which is 70 by 115 feet, will seat 600 persons. An orchestra and band are present all the season, and scarcely an evening passes without a hop or a german. Some of the choicest parts of Lookout Mountain have been laid out for residences, and the Lookout-Mountain Company has brought about a considerable settlement in this locality, so famous for its history and so charming for its picturesqueness.

SUNRISE ROCK: CHATTANOOGA & LOOKOUT-MOUNTAIN RAILROAD.

Coming down from Lookout Mountain, but before arriving at Chattanooga, can be seen the grand property of the Chattanooga Land, Coal, Iron & Railway Company. This company owns 20,000 acres of land, one third of which is nearer the city than any other unoccupied territory. The property of the company is bordered by eleven miles of deep-water river front. Hamilton County, in which Chattanooga is situated, has built a public bridge over the Tennessee River, leading direct from the heart of the city to the company's property. The bridge is of iron and steel, built at a cost of $250,000. The company owns 5,000 acres on Walden's Ridge. This situation is remarkable for its sanitary excellence, being a part of the celebrated Cumberland table-land, where no case of pulmonary consumption ever occurred. These lands abound in coal and fossiliferous iron ores. The coal is excellent for coking purposes. In addition to this, the company owns 7,500 acres of fine limestone property. The Chattanooga Land, Coal, Iron & Railway Company is heavily backed by Northern and English capital, and forms one of the soundest organizations of this character in the South. The company has built an electric railway, reaching from the heart of the city, and running through its property nearest the city. Its plans are also matured for a standard-gauge steam railway bridge over the Tennessee River, and a railway to the mountains for the development of its great areas of coal. It contemplates adding a residence and manufacturing suburb to Chattanooga, and gives liberal aid to enterprises locating on its lands.

MOCCASIN BEND, FROM LOOKOUT MOUNTAIN.

CHATTANOOGA, ON THE TENNESSEE RIVER.

Finances.—The net debt of the State has fallen from nearly $28,000,000 to $15,000,000 in 1890. The floating debt has been extinguished, and the obligations are now concentrated in a bonded debt. In point of banking, as well as a cotton market, Memphis is a live city. Its banking capital is $10,000,000, and its yearly clearing-house business exceeds $125,000,000. The State banks of Tennessee outnumber the National banks. The largest bank in the State is the Bank of Commerce, of Memphis. This is one of the most flourishing banks in the South. It has $1,000,000 of capital stock, and about $350,000 surplus and undivided profits. Its total assets amount to over $3,000,000. There are individual and bank deposits approximating $1,500,000. The president is S. H. Dunscomb; the vice-president is John Overton, Jr.; and J. A. Omberg is the cashier. The Bank of Commerce has a board of directors that includes some of the most influential and substantial citizens of Memphis. It owns and occupies its own building, which was specially designed for this institution. The advancement of the Bluff City to its present high place has been largely aided by this powerful and sagacious bank, which stands ready to give financial aid to all properly accredited enterprises, and to stimulate in every possible way the growth at this point of the metropolis of the lower Mississippi Valley. The enormous transactions in cotton and lumber in this region render necessary a banking system of the most careful and skilful organization, and this is furnished by the Bank of Commerce of Memphis.

MEMPHIS: BANK OF COMMERCE.

The cotton princes of Memphis are mainly united in six firms, with an aggregate capital exceeding $10,000,000, and their energy and intelligence have made of this city the largest interior cotton market of the world. Foremost among these is the firm of Hill, Fontaine & Co., called the largest inland receivers of cotton in the world, and covering ten States with their enterprises, in which they have an invested capital of $2,000,000. Their crop reports are gathered by an army of correspondents, and telegraphed all over Europe and America as unimpeachable authority. In a single year they have received on consignment and sold on commission the enormous quantity of 136,000 bales of cotton. The business also includes a large wholesale grocery trade, furnishing supplies for a broad area of the Mississippi Valley. The firm occupies a high position as commission-merchants, selling actual cotton received, and doing a total business of $8,000,000 a year. Its name is a tower of strength among the planters of half a score of States; and whenever seasons of depression come, Hill, Fontaine & Company are always ready, with their large capital and influence, to secure for the producers the full value of their crops.

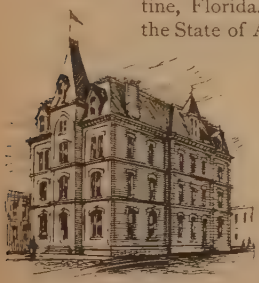
MEMPHIS: WAREHOUSE NO. 1, OF HILL, FONTAINE & CO.

Railroads here began with the Memphis Railroad, chartered in 1831, when there were but fifty miles of track in America. Their construction was advocated by Gen. Gaines and Col. Hayne of South Carolina, in 1835. Ten years passed before the Nashville & Chattanooga line received incorporation, and only in 1853 did the trains begin running between Nashville and Bridgeport. The Memphis & Charleston Railroad got its charter in 1846, and finished the line in 1857. The Hiwassee (East-Tennessee & Georgia) Railroad was chartered in 1836, and began construction near Athens in 1837, but trains ran from Dalton to Knoxville only in 1867. This route was connected with the Virginia system a year later. The Nashville & Northwestern began in 1852, and reached Hickman in 1868. The Louisville & Nashville was opened in 1859, and its Memphis branch in 1860. The first important highway in Tennessee was the Natchez Trace, cut through by the Government, in Jefferson's administration, from Kentucky to Natchez, the route lying 35 miles west-

ward of Nashville. It was much used by boatmen returning from New Orleans. The Military Road was cut by Gen. Jackson from Nashville to Jackson, Miss., for the passage of troops and supplies, and afterwards became a famous route for stages and hog and mule drivers. The rugged and hilly early roads have been replaced by a far-reaching and efficient system of macadamized turnpikes, built at a cost of millions of dollars.

The heart of the South is penetrated by means of the East-Tennessee, Virginia & Georgia Railroad. This great system has its centre at Chattanooga and throws out its branches in every direction. Passing northward it intersects at Knoxville with two great branches, one reaching Cincinnati and Chicago and the whole West and Northwest; the other, winding through the romantic mountainous regions of North Carolina, Tennessee and Virginia, passes on to Norfolk, Philadelphia and New York. From Chattanooga westward the East-Tennessee, Virginia & Georgia Railroad reaches out one of its great arms to Memphis and the navigation of the Mississippi River. Another arm extending southeasterly across the entire expanse of the State of Georgia, reaches tidewater at Savannah and Brunswick, and at Jacksonville and St. Augustine, Florida. Still another arm extends southwesterly, crosses diagonally the State of Alabama and reaches Mobile and the navigation of the Gulf. At Selma, Ala., a branch divides, which extends to Meridian, Miss., and thence by connections New Orleans is quickly and easily reached. This great system owns or controls more than 1,600 miles of track line. Fully one half of its tracks is of the best steel. The company is financially in a very prosperous condition, and it is constantly extending its track and increasing its facilities for reaching important points. It has a capital of $57,000,000, with a funded debt of $21,000,000. This flourishing corporation is the successor of another bearing a similar name, whose property was in May, 1886, sold under foreclosure, and purchased for the security-holders, under an admirable plan of reorganization. This was speedily effected, and the new company under good management has prospered from its organization. The road is a favorite with people visiting the South, and especially with those seeking the mountain-resorts at Chattanooga and Asheville, and throughout Virginia and North Carolina.

KNOXVILLE: E. T., V. & G. R. R. DEPOT.



KNOXVILLE: GENERAL OFFICES OF E. T., V. & G. R. R.

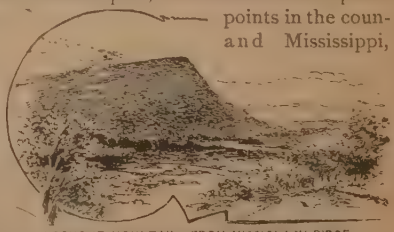
The Manufactures of Tennessee rose from $20,000,000 of invested capital and $37,000,000 of output in 1880, to $40,000,000 in invested capital and $75,000,000 in yearly output in 1885. Tennessee has 23 cotton-mills, with 100,000 spindles, employing 2,700 operatives and using 33,000 bales yearly; 19 woolen mills, with 900 hands, using 2,113,000 pounds yearly; and 13 iron and steel manufactories, with 5,500 workmen. The yearly product of flour reaches $10,000,000; of lumber, $5,000,000; of leather, $2,000,000. The cotton-seed-oil mills are of large and growing importance, producing yearly 3,000,000 gallons of oil and 300,000 sacks of meal and cake. This industry dates from 1859, and at first all the products were sent to England, the oil being used entirely for lubricating.

The immensity of the cotton trade in this country is due in a great measure to the invention of the cotton gin by Eli Whitney. Before that time the seeds of the cotton had to be picked by hand from the fibre by a very slow process. The Milburn Gin & Machine Company of Memphis has been in the business of manufacturing cotton machinery since 1879. Their plant comprises an exceptionally large block of fine brick buildings, covering over five acres of ground, where 500 men are employed. The company was incorporated in 1883, and was practically a consolidation of two companies, the Carver Gin & Machine

MEMPHIS: MILBURN GIN & MACHINE CO.

Company and the Milburn Iron Works, and thus brought about one of the notably large industries of the South. The material alone annually consumed costs nearly $500,000. Although the capital is not legally set, the amount used is nearly $1,000,000. Besides ginning machines they turn out steam-engines, boilers, tanks and oil-mill machinery. In the specialty of wood-split pulleys this is one of the foremost manufactories in the country, making immense quantities, which are sold throughout the Union. This company has taken several awards. They have agencies throughout the South, and in Russia, Australia and South America. The Milburn Gin & Machine Company has made a successful competition with Northern manufacturers.

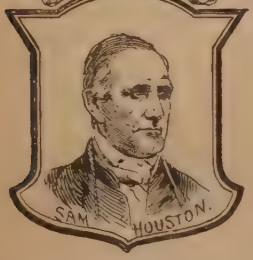
One of the most enterprising cities of the South is Memphis, the centre of the upland cotton region, and one of the leading receiving points in the country. Four States, Alabama, Tennessee, Arkansas, and Mississippi, send much of their raw cotton to Memphis, there to be brought into shape and shipped on the Mississippi River, or on some of the many railroads entering the city. In 1889 over 700,000 bales were received here. Formerly the compressing of cotton was done in a singularly clumsy way. Platforms about ten feet high were built, from which big sacks of jute bagging hung. Cotton was piled in until the sack was half full. Then two of the heaviest negroes of the plantation got into them, to tread them down. The Merchants' Cotton Press & Storage Company, the largest of its kind in the world, was founded in 1870, for the more scientific and systematic handling of the great cotton-crops of the States of which Memphis is the centre. Its original capital of $50,000 has increased to $1,500,000, with a large and available surplus.



LOOKOUT MOUNTAIN, FROM MISSIONARY RIDGE.

MEMPHIS: THE MERCHANTS' COTTON PRESS & STORAGE COMPANY.

The plant includes six first-class modern compressors, of the Morse & Taylor make, with an operating capacity for 10,000 bales a day. In a single year they have compressed over 500,000 bales. The presses are located in five different localities on the great routes centreing at Memphis. The buildings are of brick, and are equipped with apparatus for the extinguishing of fire. The officers are Napoleon Hill (of Hill, Fontaine & Co.), president; S. R. Montgomery, general manager; and J. M. Fowlkes, secretary and treasurer.



HISTORY.

The first European settlement in Texas was made by the Sieur de la Salle, who in 1685 erected Fort St. Louis, on the Lavaca, near Matagorda Bay. The French garrison was destroyed by the Indians; and five years later Capt. De Leon and 110 Spanish soldiers and monks founded on the same site the mission of San Francisco. After a gloomy period of Indian hostilities and failing crops, governor and garrisons and colonists abandoned the country together. In 1714 St. Denis was sent to occupy Texas for France, but having been captured by Spanish troops on the Rio Grande, he aided in establishing in Texas divers Spanish missions, San Antonio, Dolores, San Agostino, and Nacogdoches. The domain bore the name of The New Philippines, and the Marquis de Aguayo became its governor-general. For over a century Franciscan missionaries and clergy worked among the Indians, converting them to Christianity and semi-civilization. Their decline began in 1758, after the dreadful massacre of the pastors, flock and garrison of San Saba, and the workmen in the silver mines near that place. The Concepcion, San Jose de Aguayo, San Juan Capistrano, San Francisco de la Espada and San Fernando Missions still stand, in and near San Antonio, most of them in picturesque ruins. The Mission of San Antonio de Valero, after being secularized by the Spanish Government, in 1793, became a military garrison, and received a deathless renown under the name of the Alamo.

After the United States bought Louisiana from France, it became a grave question as to where that territory ended on the west. Spain limited it to the Sabine, America claimed to the Rio Grande, and a neutral ground was fixed from the Sabine to Arroyo Hondo, until (in 1819) the Sabine became the border. For many years revolutionary forays were made into Texas, by Magee,

STATISTICS.

Settled at	San Antonio.
Settled in	1690
Founded by	Spaniards.
Admitted to the U. S.,	1845
Population, in 1860,	604,215
In 1870,	818,579
In 1880,	1,591,749
White,	1,197,237
Colored,	394,512
American-born,	1,477,133
Foreign-born,	114,616
Males,	837,840
Females,	753,909
In 1890 (U. S. census),	2,235,523
Population to the square mile,	6.1
Voting Population,	380,376
Vote for Harrison (1888),	88,422
Vote for Cleveland (1888),	234,883
Net State Debt,	None.
Assessed Valuation of Property (1890),	$696,000,000
Area (square miles),	265,780
U. S. Representatives (in 1893),	13
Militia (Disciplined),	2,688
Counties,	244
Post-offices,	2,366
Railroads (miles),	8,613
Capital,	
Gross Yearly Earnings,	
Vessels,	229
Tonnage,	9,589
Manufactures (yearly),	$20,719,928
Operatives,	12,159
Yearly Wages,	$3,343,087
Farm Land (in acres),	56,303,454
Farm-Land Values,	$170,468,886
Farm Products (yearly)	$64,204,329
Public Schools, Average Daily Attendance,	340,000
Newspapers,	542
Latitude,	25° 51′ to 36° 30′ N.
Longitude,	93°27′ to 106°40′ W.
Temperature,	—14° to 109°
Mean Temperature (Austin),	67°

TEN CHIEF CITIES AND THEIR POPULATIONS. (CENSUS OF 1890.)

Dallas,	38,067
San Antonio,	37,673
Galveston,	29,084
Houston,	27,557
Fort Worth,	23,076
Austin,	14,575
Waco,	14,445
Laredo,	11,319
Denison,	10,958
El Paso,	10,338

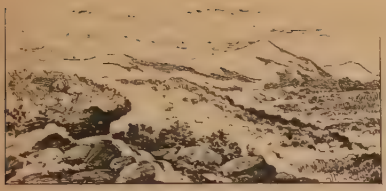
Kemper, Gutierrez, Bean, Toledo, Perry, Long, Auzy, and Mina, attended with heavy fighting and hideous massacres. Under these inflictions, and the attacks of the powerful Indian tribes, Texas became almost a desert, and Mexico deemed it wise to invite immigrants from the United States. After 1820 colonies of American farmers settled along the Sabine and Colorado, and ten years later 20,000 of these hardy adventurers had pitched their tents here. The flourishing American colonies sent Gen. Austin to Mexico, in 1833, to ask that Texas might be admitted as a State of the Mexican Union. But Austin was thrown into prison, and troops marched from Mexico to disarm the Texans and arrest their civic officials. The officials of Coahuila (of which Texas was a part dependency) also annoyed the spirited pioneers in many ways, and the centralizing policy of Santa Anna threatened to obliterate the last vestige of their freedom. The United States had made two attempts to buy Texas, in 1827 and 1829, but without success. At last, the fiery Southerners who had made this land their home rose in armed revolution, and in 1835 overthrew their Mexican tyrants, inflicting serious defeats upon them at Gonzales and Goliad, and storming San Antonio. After they had all been driven out, the Texans proclaimed their country to be a free and independent republic. As soon as possible, Santa Anna, the President of Mexico, led 7,500 troops across the Rio Grande, and in 1836 cruelly massacred the surrendered Texan command at Goliad. Marching upon San Antonio, "the Napoleon of the West" bombarded and stormed the Alamo, and after a bitter fight (in which he lost 1,500 men) he slew all its defenders, Travis and Crockett and Bowie, and 170 other Texan heroes. *Thermopylæ had her messenger of death: The Alamo had none.* Gen. Houston, a Fabian leader, retreated far into the country, and when the pursuing army got where he wanted it to be, at San Jacinto, he annihilated it, and captured Santa Anna. Mexico kept up a weary warfare against Texas for years, and as late as 1842, successive armies under Vasquez and Woll captured San Antonio; and Gen. Ampudia and the Yucatan Regiment overwhelmed Fisher's Texans at Mier. This desultory struggle exhausted the credit of the new republic, and many of its citizens favored an Anglo-French protectorate, to deliver it from Mexican hostility and American annexation. The Republic of Texas extended from the Sabine to the Rio Grande, the present eastern Pan-Handle boundary reaching then northward to the Arkansas River, while the western boundary (as claimed) followed the Rio Grande to its head, and thence ran due north to the Arkansas Valley. This domain included the greater part of New Mexico (all east of the Rio Grande), and parts of Colorado and Kansas, together with No Man's Land.

SAN ANTONIO: THE ALAMO.

EL PASO: THE CATHEDRAL.

The independence of Texas was acknowledged by France (in 1837), the United States (in 1839), Great Britain (in 1840), Holland, and other powers, whose ambassadors resided at Austin. After ten years of national life, Texas joined the American Republic, on the urgent solicitation of President Tyler, the annexation being opposed by Clay, Benton, Blair and Van Buren, and favored by Calhoun, Jackson and Polk, as likely to give the South a great preponderance in Congress. Texas claimed the Rio Grande as its western boundary, and Mexico endeavored to limit her to the Nueces. Gen. Taylor entered the disputed region with an army of occupation, and the Mexican forces promptly attacked him, but received serious defeats at Palo Alto and Resaca de

SAN ANTONIO: MISSION CONCEPCION.



SIERRA BLANCA:
TEXAS & PACIFIC RAILWAY.

la Palma, after which Taylor crossed the Rio Grande, stormed Matamoras and Monterey, and won a heroic victory over Santa Anna at Buena Vista. Texas received $10,000,000 from the United States for the great domains west and north of its present borders, and the debt of the Republic and the expenses of the State for many years were paid therewith. It also received the right to divide into five States, if future development should require it. The imperial area of public lands within the State, Texas reserved for her own control and disposal. When the late civil war opened, the governor, Sam Houston (formerly President of Texas), made every effort to hold his State firm in her attachment to the Union; but the people voted in favor of secession, 39,415 to 13,841. Gen. Twiggs surrendered 20 United-States forts; and the garrisons (2,500 soldiers) with their arms were conveyed out of the State. Houston was deposed from the governorship, and then the State swung into the Confederate line. The war made little impress on this imperial domain, which happily lay outside of its appalling struggles. The Federal fleet and army occupied Galveston, October 4, 1862, but were driven out three months later, with heavy losses, and the Confederates held the port until the end of the war. The National fleets were twice repulsed from Sabine Pass, by Confederate cotton-clad steamboats and forts, and lost four gunboats. In November, 1862, Gen. Dana occupied Brazos Santiago and Brownsville with 6,000 soldiers from New Orleans, and the whole coast except Galveston and the Brazos River fell into the hands of the Federal troops. These useless garrisons were soon withdrawn (except at Brazos Santiago), and the navy alone watched the silent coast. In the remote southwest Confederate troops aided Bazaine's French forces against the patriot Mexicans, who in turn raided along the Rio-Grande border, under Cortina's lead.

EL PASO: TEXAS & PACIFIC RAILWAY.

The vast influx of immigrants and capital, and the development of mines, cattle-ranges and farms have raised Texas to the proud position of the richest State in the South. Since 1880 it has far passed Kentucky and Virginia, its nearest competitors. A single county in the Pan Handle, which had but twelve families, now raises more wheat than the entire State did at that time. The immigration has come mainly from the older Southern States, left prostrate by the civil war, and finding in Texas the most promising outlet for the ambitions of their young men. Many thousands of Frenchmen, Poles, Swedes, Germans and other Europeans have entered at the port of Galveston; and great numbers of Northwestern farmers now occupy the northern counties. Texas hopes to outvote New York in the Electoral College, in 1900. She has a huge surplus in her treasury, and owns large areas of land besides. Among the chief local questions are the protection of wool-growing, irrigation laws, the control of railways, and the construction of a first-class deep-water harbor. The State always goes Democratic, by colossal majorities, which have reached above 160,000. There are but three Republicans in the Legislature.

SAN ANTONIO: CITY HALL.

The Name of the State commemorates the Tejas or Atayos Indians, first mentioned by the survivors of Pamfilo de Narvaez's expedition, who traversed their country in 1536.

GRAND CANON OF THE RIO GRANDE.

Padre Paredes in 1636 reported the Tejas as being near the lower Brazos; La Harpe found them on the Neches, in 1719; and Seale's map shows the Tecas tribe here in 1750. This Indian word meant *Friends*, and was a generic title in Mexico, with the Tlaxcal-tecas, Cholu-tecas and other tribes. Some ingenious antiquaries, however, derived the title from the Spanish word *Tejas* ("roof tiles"); or from the Celtic-Spanish *Tehas* ("plain"), whence comes *Dehesa*, the great plain near Seville, and our word *dais*, whose original meaning was an elevated platform. The pet name of THE LONE STAR STATE refers to the device on the flag and seal of the Republic of Texas, which was adopted to indicate the political isolation of the Commonwealth. The first Lone-Star flag, of white silk, with a five-pointed azure star, was presented in 1835 to the Georgia Battalion, then fighting for Texan liberty. The seal and arms of the Republic showed a white star surrounded by live oak and olive branches, on a blue field, and is in use by the State to-day.

The Presidents of Texas were Sam Houston (of Virginia), 1836-8; Mirabeau B. Lamar (of Georgia), 1838-40; Sam Houston, 1840-4; and Anson Jones (of Massachusetts), 1844-6. The governors were James Pinckney Henderson, 1846-7; Geo. T. Wood, 1847-9; P. Hansborough Bell, 1849-53; Elisha M. Pease, 1853-7; Hardin R. Runnels, 1857-9; Sam Houston, 1859-61; Edward Clark, 1861; Frank R. Lubbock, 1861-3; Pendleton Murrah, 1863-5; Andrew J. Hamilton (provisional), 1865-6; J. W. Throckmorton, 1866-7; Elisha M. Pease (provisional), 1867-70; Edmund J. Davis, 1870-4; Richard Coke, 1874-6; R. B. Hubbard, 1876-9; Oran M. Roberts, 1879-83; John Ireland, 1883-7; Lawrence Sullivan Ross, 1887-91; and James S. Hogg, 1891-3.

DALLAS: COURT-HOUSE.

Descriptive.—Texas covers an area four times as great as New England, larger than France, Germany or Austria, and equal to six New Yorks or seven Ohios. It is 800 miles across it, from Louisiana and Arkansas to the Mexican States of Tamaulipas, Coahuila and Chihuahua; and 750 miles from No Man's Land southward to the Gulf. The distance from Texarkana to El Paso is about the same as that from New York to Chicago. If the whole population of the Republic were to be transported to Texas, it would be no more thickly settled than Massachusetts is now. The Pan Handle lies between the Indian Territory and New Mexico. In a broad way, the State forms a vast inclined plain, falling away from the mountains of the northwest to the lowlands of the Gulf.

The Gulf coast has a length of 375 miles, with a back country of 22,000 square miles, very level, and partly in forest and cactus chaparral, partly in open plains. It is cut by deep and navigable bayous and sounds, and shallow lagoons setting up among the sugar and cotton lands, and guarded, outside, by a long chain of low and narrow islands of white sand. Vast herds of cattle graze along the rich lowlands and plains, affording an increasing source of revenue. It is a sombre coast at night, for there are but four harbors with light-houses, and it is over 100 miles from the Galveston lights to the next beacon to the westward, at Matagorda, and an equal space between the Aransas and Brazos-Santiago lights. Sabine Pass, seven miles long, is the marsh-bound outlet of the shallow Lake Sabine, which covers nearly 100 square

SAN ANTONIO: POST-OFFICE.

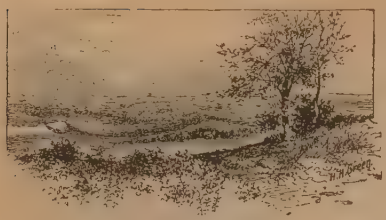
miles. The General Government has built jetties out three miles into the Gulf, with the result of deepening the water in the Pass. Galveston Bay, including the shallow East Bay, the Upper Bay and Galveston Bay proper, covers 455 square miles, and has a bar four miles outside of its entrance, with only thirteen feet of water. The Government is now building parallel stone jetties, each over five miles long, at a cost of $6,000,000, with a view to deepening the channel, and admitting the largest vessels to the roadstead near the city. Matagorda Bay, sixty miles by six in area, is fast shoaling, and has only seven feet of water at its entrance. Aransas Bay and the four connected bays cover 350 square miles, and are entered by Aransas Pass, where the Government is building stone jetties. The fine breezy climate and picturesque beaches and cliffs of Corpus Christi, and the great commercial advantages to accrue when the bar off Aransas Pass has been cut down have drawn public attention and capital in this direction. The Laguna de la Madre is ninety miles long and eight miles wide, and its currentless waters undergo perpetual evaporation from the hot southern sun, so that fish die on entering it, and the low shores are covered with thick deposits of pure white salt. This product supplies a large part of Texas, and was of especial value in the old Confederate days. Outside, the sand-strip of Padre Island fronts the Gulf for 100 miles.

DALLAS : CITY HALL.

Recently the Western Congressmen and statesmen have made a concerted effort to get the Government to construct a deep-water harbor on the Texan coast, so as to afford a marine outlet for their products, from 500 to 1,000 miles nearer than New York, and thus save $30,000,000 a year in freight charges. Galveston was the port selected for development, and careful surveys are being made of Sabine Pass, Aransas Pass and other possible ports, to find other sites for improvement in the interests of Western commerce.

The rivers of Texas bear musical Castilian names, and several of them are navigable for 200 miles or more, at high water. The Sabine forms part of the eastern boundary, and may be ascended by steamboats 247 miles, to Hamilton. The Neches empties into Sabine Lake, after an unnavigable course of 350 miles. Galveston Bay receives the Trinity River, named for three uniting forks, and 550 miles long, with a trade carried on by 30 schooners and sloops, ascending as far as Wallisville. Many steamboats have visited Liberty; and at very high water adventurous captains have ascended even to Magnolia, in Anderson County. The Colorado has been traversed by steamboats as far up as Lagrange. The Brazos River is 800 miles long; navigable for 49 miles, to Bolivar Landing, and in high water for 255 miles, to Washington. Great sums have been wasted by the Government in attempts to create a deep harbor at its mouth. Matagorda Bay receives the Colorado, 900 miles long, and the limpid San Antonio, reinforced by the clear and rapid Guadaloupe. The Nueces enters Corpus Christi Bay. The Rio Grande forms the western boundary, from El Paso down to the Gulf, and is generally fordable above the point where the tides cease to flow. Steamboats ply between Brownsville and Rio-Grande City, 300 miles, weekly. Most of the rivers east of the Trinity are sluggish and muddy, and the rivers west of the Brazos are clear and swift. The running streams contain white and yellow perch, speckled trout, gaspergoine and catfish; and the lakes have black bass, cypress trout and raff. The fish of the bays include pompano, sheepshead, mullet, buffalo-fish, redfish, salt perch, angel-fish, horse-fish, and great quantities of fine oysters. Green turtles abound along the Gulf coast, and their steaks

FORT WORTH : CITY HALL.



TEXAS & PACIFIC RAILWAY: VIEW FROM ROUND-TOP MOUNTAIN.

and eggs, canned meat and soup are exported to all parts of America and Europe, to the amount of $1,000,000 a year. Chinamen and Malays catch and export vast quantities of shrimp, which are sent away in boxes, barrels and cans. The sharks of the Gulf are hunted by fishermen, for their skins and cartilages.

Eastern Texas lies east of 96°, and abounds in iron and timber, with vast pineries and oak and hickory uplands, and belts of magnolia and cypress, beech and elm, covering 45,000 square miles. Here are great areas of sugar and tobacco and semi-tropical fruits, and valuable stock-farms. Northern Texas covers 25,000 square miles, between 95° 30′ and 100°, including two or three tiers of counties south of the Red River, and is rich in wheat and cotton. The central region includes the sandy lignite measures, and the water-sculptured gypsum-beds, resembling the Bad Lands, with miles of cedar and juniper chaparral, besides vast areas of valuable farming lands, varied by live-oak and cypress islands and wooded river-bottoms. The Cross Timbers are two belts of deep forest, of post oaks and black-jack oaks, each from ten to 15 miles wide, and separated by a rich prairie 50 miles wide. The Lower Cross Timbers is 135 miles long, running from the Red River, near Gainesville, southward by Dallas and Fort Worth, to Waco, on the Brazos River. The Upper Cross Timbers covers less ground, and lies west of Fort Worth, running from the Red River north of Montague southward to the Brazos, with a branch veering westward into Palo-Pinto and Erath counties.

AUSTIN: UNIVERSITY OF TEXAS.

The undulating zone of the black-waxy prairies extends across the State inside of the coast plains, and includes Denison, Waco, Dallas, Austin, Sherman and San Antonio, its boundaries on the Rio Grande being Laredo and Eagle Pass. The chief trees are live-oaks, with scattering mesquite-bushes. This is the most densely populated part of Texas, with a breadth of from 30 to 60 miles, and a length of 700 miles, and an enduring soil. In this wonderful country corn, wheat and cotton are often found in the same field, thriving with equal vigor.

Western Texas, between the Colorado and the Nueces, covers 50,000 square miles, and has 200,000 inhabitants. It is an undulating and forestless table-land, occupied by enormous cattle and sheep ranches. Southwestern Texas lies between the Nueces and the Rio Grande, up to the Rio Pecos, including 30,000 square miles, and 90,000 inhabitants. Millions of cattle and sheep feed on its rich native grasses.

The Pan Handle covers 27,250 square miles (or 27 counties), north of Prairie-dog-town River, with 6,000 square miles of the fertile Red-River basin in the southwest, abounding in wheat and corn, and along the south abrupt and broken gypsum hills, rising above brackish streams and salt-springs. Much of this great plateau is in high rolling prairies of deep black and reddish-brown loam, cut by the narrow valleys of many streams, and carpeted with rich grasses. The prairie-fires have prevented the growth of trees, except along the streams. Land in this region is sold by the State at from $2 to $3 an acre, payable in 20 years; and thousands of farmers are now settling here to raise wheat and other grains, vegetables and fruits. The climate is balmy and salubrious, without malaria or consumption in the air, and

TEXAS & PACIFIC RAILWAY: BIG SPRINGS.

has a bracing coolness, on account of its great elevation, which is from 2,500 to 4,000 feet above the sea.

LUMBER-MILL ON LINE OF HOUSTON & TEXAS CENTRAL R. R.

The Staked Plains (or Llano Estacado) cover a broad area of the Pan Handle, on the west, south of the Canadian River, and extending over into New Mexico. Here the Great Plains come down into Texas, smooth and woodless, with no surface water except ponds, many of which are salty. The light and porous soil produces vast quantities of rich gramma grass, and large herds find pasturage, getting abundant water from drilled wells and artificial reservoirs. These great steppes break off on the east in irregular escarpments. The Canadian River and Rio Pecos and the head waters of the Brazos have gashed the land with deep cañons; and the Red River rises in the Palo-Duro Cañon, ten miles south of Amarillo, and flows for 90 miles in a rocky gorge, filled with a dense forest of red cedar. It is said that the name of this vast plateau arose from the line of poles or stakes fixed across it by the Spanish traders of the Rio Grande, as a guide for travellers across the unpeopled wastes, especially from Santa Fé to the Red River and to San Antonio. Others refer the name to the stake-like cacti. The rough mountains of Llano and San Saba run off southward into a broken region of white limestone, Mexican in its bleakness, tropical heat and loneliness. On the west stretches a waterless plain, from which rise picturesque limestone buttes.

WACO: BAYLOR UNIVERSITY.

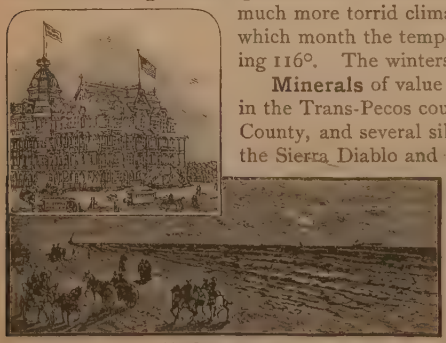
The country between the Rio Pecos and the Rio Grande includes eight large counties, made up of long mountain ranges, with poorly watered and thinly populated valleys, oftentimes of singular landscape beauty. Guadalupe Peak is 9,000 feet high. The Limpia and Guadalupe ranges are overgrown with great yellow and nut pines, amid which roam mule-deer and Rocky-mountain sheep. Immense basaltic cliffs look down on lonely plains covered with wild grass, cactus and mesquite, where scores of rivers, flashing down out of the hills with full currents, fade away and disappear. Under the silver-veined Sierra Diablo lies the broad valley of the Salt Lakes; and other great saline pools lie near the Sierra Carrizo. This wild mountain-land between the Pecos and Rio Grande covers over 30,000 square miles, and is nearly as large as Maine, Indiana or South Carolina. Since 1886 it has received a large immigration, although agriculture here must be carried on generally by the aid of irrigating canals.

The mineral waters of Texas are of great variety, and have caused the upbuilding of scores of health-resorts. Sour Lake, east of Houston, covers four acres, and contains sulphur, alum and iron, giving great benefit in cases of rheumatism and cutaneous diseases. It is used in bathing. The Piedmont Springs, near Navasota, are mild sulphur waters. The Sour Springs, near Luling, are rich in medicinal virtue, especially for biliary troubles and rheumatism. Sutherland Springs, in Wilson County, include seltzer, sour, iron, and black and white sulphur waters. Lampasas Springs, 60 miles north of Austin, have valuable white sulphur waters, in gushing fountains. The Wooten Mineral Wells, near Bremond, yield considerable quantities of valuable waters for export. Georgetown has springs like those of Carlsbad, and ships

CUTTING TIMBER ON THE LINE OF THE HOUSTON & TEXAS CENTRAL RAILROAD.

thousands of barrels yearly. The town is prettily situated on the San Gabriel, amid romantic scenery. Boerne is in a mountain-glen 30 miles north of San Antonio, and 800 feet above it, with several hotels much visited by people suffering from lung troubles.

The Climate is remarkably varied, and has a wide range, from the intense heat of the coast and the Rio-Grande Valley to the snowy winters of the Pan Handle. The mean annual rainfall of El Paso is nine inches; that of Galveston is 51 inches. The mean temperature of Eagle Pass and Galveston is 70°; of Fort Concho, 64°; of Denison and Fort Elliott, 54°; of Fort Ringgold, 73.4°; of Austin and El Paso, 68°. Inland from the black-prairie region the rainfall decreases to a point inadequate for farming. The southerly and southeasterly Gulf winds that blow continually across the State alone make it habitable in summer. A singular and disagreeable feature of the winters is the norther, a bitterly cold wind from the north, cutting sharply through the bland atmosphere, and lasting three days (and sometimes longer). These biting blasts drive the people into their overcoats, even among the oleander-groves of San Antonio and Corpus Christi; and bring great peril to seamen on the Gulf. San Antonio and many other localities are famous for their exemption from pulmonary and bronchial diseases, and have become favorite resorts for invalids, who find healing in their gentle air. The Rio-Grande Valley and Western Texas have a much more torrid climate, reaching its climax in May, for half of which month the temperature holds above 100°, sometimes reaching 116°. The winters here are also colder than on the coast.



GALVESTON BEACH.

Minerals of value are found in many localities, and especially in the Trans-Pecos country, where there are gold-mines in Presidio County, and several silver-mines in the Quitman Mountains and the Sierra Diablo and Sierra Carrizo. The choicest of magnetic iron ore has been found in Mason County; and there are inexhaustible deposits in Llano and Burnet Counties, and along the Rio Grande. Hematite ores abound in Eastern Texas, where there are smelting-works and foundries, especially at Rusk, New Birmingham and Jefferson. The bituminous lignite of the Rio Grande has a high value, and is mined at Eagle Pass and San Tomas. Light fibrous lignites appear along the coast plain and the Rio Grande, in beds 20 feet thick, and covering great areas. The Missouri coal-field extends from the Red River almost to Austin, and is mined at Gordon, Strawn and other places, although rather slaty and sulphurous. The copper deposits of the Wichita country extend for many leagues, and have been exploited in Archer County. There are valuable copper veins in the Llano and Trans-Pecos districts, where lead is also found. The largest and purest deposits of massive gypsum in North America occur on the White Hills, along the headwaters of the Red River, above the Abilene country, covering 200 miles square. The cement-mills of Austin and San Antonio send their products as far as California, besides supplying the extensive local demand. Salt-mines are worked at Colorado City and El Paso, and at the Grand Saline, 100 miles east of Dallas. There is a wonderful salt lake in Hidalgo County, a mile across, which has been for generations visited by Mexican carts; and large supplies are obtained from the lagoons about Brownsville and Corpus Christi.

The red or pink granite of the State Capitol abounds in Burnet County, and variegated and gray granites occur elsewhere. Marble is found in coralline, mahogany, orange-red and blue crystalline varieties, with white marble in Burnet, Travis and San Saba and around the beautiful Marble Falls of the Colorado. Sandstone, yellow and gray, brown and black, is largely quarried at Parker, in Travis, and used in the best buildings of Austin and Dallas. Petroleum-wells are in operation, near Nacogdoches, yielding a heavy lubricating oil; and

natural gas has been developed in large quantities. In the west are far-reaching caverns, filled with thousands of tons of bat-guano. In other localities are found potter's clay and fire clay, kaolin and glass-sand, and manganese, soapstone and lithographic stone, mica and mineral paints, marl and asphaltum, bismuth and antimony.

GALVESTON: COTTON EXCHANGE.

Agriculture is the business of two thirds of the Texan people. The eastern third of the State, with four fifths of the population, is devoted to farming, with sugar on the bottom-lands, rice along the coast, wheat on the black waxy prairie, and cotton and corn everywhere. Texas is the foremost State in cotton, having for ten years past produced more than 1,200,000 bales yearly, mainly on the rich alluvial lands between Denison and San Antonio. Of the cotton of the world, the United States produces three fourths, or 7,000,000 bales a year. The enormous Texan crop finds its way mainly to the mills of Europe and New England, and yields nearly $50,000,000 a year. The product of cotton-seed exceeds 600,000 tons yearly, and employs many oil-mills. Mainly in the north, 5,000,000 bushels of wheat are raised yearly. It is sown in the autumn, and harvested in May and June, averaging 20 bushels to the acre, of good weight and quality. This harvest provides but half of the wheat used in the State. The corn crop has reached 27,000,000 bushels in a year, making this the fifth American State in its product. The yearly growth of oats reaches 18,000,000 bushels, all of which finds a profitable home-market.

The grapes of El Paso, apples and peaches of Eastern Texas, and bananas of Brownsville are worthy of praise. The crop of prairie hay is 226,000 tons; of millet, 118,000 tons; of sugar-cane, 200,000 tons; of hay, 94,000 tons. Among other large products are barley and rye, tobacco and sorghum molasses. There are over 8,000,000 acres under cultivation, in 40,000 farms, producing yearly $100,000,000. Only five per cent. of the farm-values are under mortgage, which is the lowest ratio in the United States, because homesteads cannot be mortgaged in Texas. The sugar-plantations on the Brazos River already produce yearly 12,000,000 pounds of sugar and 1,200,000 gallons of syrups, valued at $1,500,000, and the business is only in its infancy. Sorgham sugar and molasses yields over $1,000,000 a year.

Two thirds of Texas are pastoral, with enormous droves of sheep and cattle, confined in league-long pastures, or roaming free, needing only the food and shelter supplied by nature. Texas has nearly 5,000,000 sheep, mainly west of San Antonio, kept in flocks of from 500 to 2,000 head, and securely penned at night, or guarded by dogs. They include great numbers of merinos. Texas leads all the other States in raising wool, reaching nearly 25,000,000 pounds a year, valued at $5,000,000.

Most of the timber lies in Eastern Texas, between the Trinity and Sabine Rivers, and its cypress, yellow pines, red and white oaks, live-oaks, hickory and pecan are rafted down the Trinity and Neches, San Jacinto and Angeline rivers. The pecan-trees of southern and western Texas yield yearly 9,000,000 pounds of nuts. Along the western prairies occur extensive and fast-increasing groves of scrubby mesquite-trees, furnishing abundant fire-wood, and a bean-like fruit, prized as food for horses and cattle. The wild animals of Texas are large gray wolves, pumas and jaguars, bears and wildcats, lynxes and foxes, deer and antelope, raccoons and peccaries, squirrels and hares. Troops of mustangs, or wild Mexican horses, still browse in freedom along the western hills.

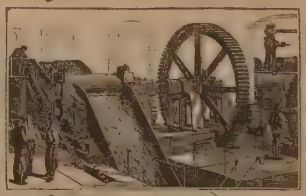
GALVESTON: COURT-HOUSE AND POST-OFFICE.

Vast tracts are owned and for sale by the Houston & Texas Central Railway Company, in the Pan Handle, and in the

counties of Wilbarger, Fisher and Baylor, the prices being from $3 an acre upward, on easy terms of payment. The soil is a rich chocolate loam, adapted to the growth of corn and cotton, wheat and oats, fruits and vegetables; and good water is found everywhere. The land is about 2,000 feet high, well above the line of malaria, and in a genial climate, where outdoor work can be carried on all the year round. In the old days the cattle syndicates discouraged settlements here, but the advance of the railways caused an irresistible tide of immigration to flow in, and afforded the best of facilities for this great movement of the people, and for the shipment of their harvests.

TEXAS & PACIFIC RAILWAY: COTTON FIELD.

The largest single sugar plantation in the United States is Sugar Land, in Texas, pertaining to Col. E. H. Cunningham, an old Confederate colonel of Hood's campaigns, and formerly of Ellis & Cunningham, the noted contractors for convict labor. It covers 12,000 acres of sandy loam, fully one third of which is within twelve feet of running water, which obviates failure in wet or dry seasons. Its product is estimated to yield yearly 6,000,000 pounds of sugar. There is a narrow-gauge railway, with nine miles of track and three miles of portable track. The immense sugar-house has two different batteries and two vacuum pans, and a complete equipment in every other way. It is contemplated to augment the resources of Sugar Land by establishing a sugar-refinery and a paper-mill, favored by the deep water along the plantation. Cultivation began here in 1843, and during the half century since no fertilizers have been used, so rich and enduring is the soil. The products of Sugar Land have a high reputation for their excellence in quality, and always command a ready market.

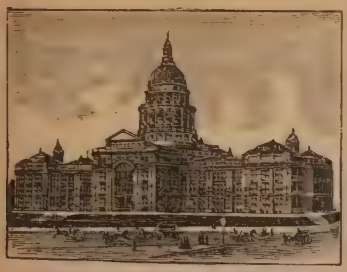

SUGAR LAND: SUGAR CRUSHING.

SUGAR LAND: CUNNINGHAM PLANTATION.

Government.—The Governor and executive officers are elected every two years. The legislature is made up of 31 four-years' senators and 105 two-years' representatives, and has a sixty days' session, every other year.

The State Capitol, the largest in America, and the seventh in size among the buildings of the world, is a vast Greek cross of red Texan granite, with a central rotunda crowned by a dome 311 feet high, above which a statue of the Goddess of Liberty upholds a silver star. This wonderful structure occupies the commanding elevation at Austin originally selected for the Capitol of the Republic of Texas. In the Capitol are preserved the treaties made by Queen Victoria and King Louis Philippe with the Texan Republic, and many other historical relics. In 1875 Texas offered 3,000,000 acres in the Pan Handle to any one who should build her a suitable State Capitol. This offer was accepted by Chicago capitalists, and the edifice arose between 1881 and 1888, having cost about $3,500,000. The Land Office of Texas, at Austin, controls the complicated system of public lands, and still has the disposal of 5,000,000 acres of the public domain. Texas was admitted to the Union as a State, without passing through the ordeal of territorial government, and never surrendered her right of eminent domain. The National Government has no public lands in this

CANE CUTTING ON THE CUNNINGHAM PLANTATION.



AUSTIN : STATE CAPITOL. BUILT BY THE CAPITOL FREEHOLD AND INVESTMENT COMPANY.

State. The Texas Volunteer Guard includes a division of two brigades, and has occasional encampments, in conjunction with United-States troops. The First Regiment is from Galveston, Houston and the southeast; the second from Austin, Brenham and Bastrop; the third from San Antonio and the southwest; the fourth and fifth from Dallas and the northeastern cities. There is also a cavalry battalion, and a colored infantry battalion, each of five companies; and the unattached Galveston Artillery. The Frontier Battalion has been reduced to three small companies of Rangers, one each for the Pan Handle, the upper Colorado and the middle Rio-Grande region, for the suppression of border raiders, train-robbers, smugglers and other lawless men. In bygone years this permanent force of State troops was much larger, and found plenty of exciting work.

The State Penitentiary has 3,400 convicts, and is nearly self-supporting, although the yearly outlay exceeds $1,300,000. 1,000 convicts are worked on farms, and 500 on railroads, under the bad Southern system of contract-labor, the gangs being under 31 sergeants and 300 armed guards. Many of the convicts work at the iron-mines and furnaces at Rusk. The Insane Asylum is a great gray sandstone building, in a park of noble live-oaks, near Austin. It has 600 inmates. The North-Texas Insane Asylum, at Terrell, has 400 inmates. The Asylum for the Blind and the Deaf and Dumb Asylum are at Austin, and have valuable educational departments. The Institution for Deaf, Dumb and Blind Colored Youths is at Austin. The State Orphan Asylum, at Corsicana, contains 200 inmates. There is a Reformatory Institute for young criminals at Gatesville, where various useful industries are taught to the unfortunates, who may thus be redeemed from lives of wrong-doing.

Education.—Texas has a princely school-fund, in bonds and lands (estimated at $100,000,000), and also school-taxes. The free schools keep open five months in each year, with equal advantages for whites and blacks. The lands are now being leased and sold to settlers as the country fills up. More than a quarter of the people above ten years cannot read. The Sam Houston State Normal School, at Huntsville, gives tuition and books free, and many of the pupils are nearly supported by State scholarships. There are 300 students, over 17 years of age, and pledged to teach in the public schools. The Prairie-View Normal School, in Waller County, is supported by the State for colored students, all the teachers also being colored. Carpentry, farming and dress-making are also taught here, and other industrial branches.

GALVESTON : BALL HIGH SCHOOL.

The Third Texan Congress in 1839 set apart for the site of a national University forty acres of land at Austin, and for two-score years this locality remained unoccupied, and bore the name of College Hill In 1876 1,000,000 acres of land were granted to the University of Texas, which began its sessions at Austin, in 1883. It has an endowment of nearly $5,000,000 worth of land, including over 2,000,000 acres, and its advantages are free to all Texan young men and women. The scheme of education combines the elective and class systems; and the graduates of 24 high schools in the State are eligible for entrance. The university has a large building, but no dormitories. There are 18 instructors and 300 students, including 70 in the law school. The Agricultural and Mechanical College of Texas, endowed by the National Congress, and opened in 1876, has a large domain and

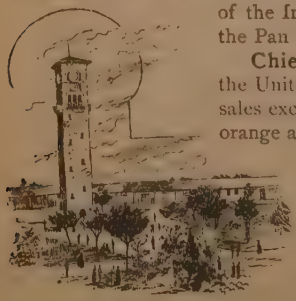
TEXAS & PACIFIC RAILWAY : PALO-PINTO BRIDGE.

SCENE ON HOUSTON & TEXAS CENTRAL R. R.

costly buildings at Bryan, and is also the site of the Texas Experiment Station. There are 12 instructors and 200 students. The older Methodist institutions of Ruterville, McKenzie and Wesleyan Colleges and Soule University, founded between 1840 and 1856, were in 1872 merged into Southwestern University, at Georgetown, on the plateau of the Colorado Mountains. It has 170 collegiate and 100 preparatory students, and 40 in the ladies' annex. Trinity University is an institution of the Cumberland Presbyterians, on the high hills of Tehuacana, and has 100 students, with a preparatory school of 200, and a theological school. Baylor University, founded at Waco by the Baptists, in 1845, has 240 collegiate and 170 preparatory students. The Texas Wesleyan College is at Fort Worth: the Catholics own St. Mary's University, at Galveston. The Ball High School and the Henry Rosenberg School, at Galveston are of great efficiency, and have very valuable and efficient equipments.

United-States Institutions.—San Antonio has been the headquarters of the United-States army in Texas since 1848 (except in 1861-5), and here a large part of the troops in the State are massed, for better discipline. The Quartermaster's Depot is a massive quadrangle of stone buildings, covering eight acres, on the hills 2½ miles from the main plaza. A handsome stone lookout tower rises in the centre of this square. The soldiers' barracks and officers' residences are in the vicinity. The San-Antonio Arsenal covers 20 acres, and supplies ordnance stores to the National troops in Texas. There are ten military posts in Texas, with nearly 2,000 soldiers in the garrisons, covering the Mexican and Indian frontiers. The largest garrison (nine companies; 527 men) is at Fort Clark, a quadrangle of barracks and officers' quarters on a high limestone ridge, 45 miles north of Eagle Pass. Fort Hancock, opposite San Ignacia; Fort Concho, near San Angelo; and Camp Peña Colorado, near Marathon, are one-company posts. Fort Bliss, near El Paso, and Fort Davis, near the Apache Mountains, are two-company posts. Fort Brown stands on a reservation of 358 acres near Brownsville, and looks across the Rio Grande at Matamoras. It is a three-company post, on a low and fertile prairie covered with chaparral. Fort Ringgold, at Rio-Grande City, five miles north of Camargo, Mexico, dates from 1848, and has three companies. Fort McIntosh, a star-shaped earthwork in a bend of the Rio Grande, with sandstone and adobe barracks and hospital, guards Laredo and the crossing of the International Railroad. Fort Elliott is the only garrison in the Pan Handle, and has four companies.

HOUSTON & TEXAS CENTRAL R. R.: A SUGAR MILL.



SAN ANTONIO: QUARTERMASTER'S DEPOT, U. S. A.

Chief Cities.—Galveston is the third cotton-shipping port in the United States, handling 700,000 bales yearly; and its jobbing sales exceed $40,000,000 yearly. It stands among far-extending orange and oleander groves, on a low island, whose noble beach of over thirty miles in length can hardly be surpassed. The streets are but a few feet above the sea, which has at times poured through them in surging waves. The Mallory steamships run semi-weekly to Key West and New York; the Morgan steamships leave weekly for Havana and New York; and another line runs to Brazos Santiago and Vera Cruz. The commerce includes the export of cotton and cotton-seed, wool and hides, tallow and lumber.

Houston, once the capital of the Texan Republic, lies on the narrow but navigable Buffalo Bayou, about 50 miles from Galveston. Great white steamboats and lines of cotton-barges pass continually between the two cities, over the bayou, and between almost endless groves of magnolias. Houston is the converging point of a dozen important railways, with immense machine-shops, cotton-seed oil-mills, car-works and docks. The Houston people are called "mud-turtles" by the Galvestonians, and retort by styling the latter "sand-crabs."

HOUSTON: HARRIS COUNTY COURT HOUSE.

Houston may become the mistress of an empire. It stands at the head of tide-water, and on an arm of the sea, with 13 concentering railroads and five more in process of development. They penetrate cotton-fields, which now, although not one tenth part developed, produce one fourth of the cotton of the United States; a pine-lumber district, which holds one fifth of the merchantable standing pine east of the Rocky Mountains; a sugar territory of 10,000,000 acres, more profitably productive than the famed sugar-lands of Louisiana; and a corn country three times larger than the State of Illinois. These are the staples, the growth of which makes States rich and their people prosperous. Cities are the certain offspring of this productiveness.

HOUSTON: MARKET AND CITY HALL.

The United States is naturally divided into three great longitudinal belts: the Eastern, bounded by "the Father of Waters;" the Central, bounded by the Rocky Mountains; and the Western, bounded by the blue Pacific. New York is the magnificent offspring of the Eastern belt. San Francisco is the golden gate through which flows the wealth of the products of the Western belt. Houston hopes to become the San Francisco, the New York, of the Central belt, the territory of greatest production at least cost. The tentacles of New York cannot longer hold the trade of the great producing West. Distance and competition, other things being equal, must regulate freight rates and interior transportation. The same process which built New York into a metropolis may build Houston till it shall be the third largest city in this country. Taking Kansas City as the centre of the Central belt, we find that it is 460 miles nearer Houston and an ocean roadway than it is to New York and an ocean roadway. A natural roadway from the Central belt to the Latin-American countries is by Houston. The wonderful advantages of location possessed by Houston to-day will continue. On the Texas coast will be at least three deep-water ports: at Galveston, 50 miles from Houston; at the mouth of Brazos River, 55 miles from Houston; and at Sabine Pass, 68 miles from Houston. The merchant, manufacturer or broker at Houston will have the choice of these three ports from which to ship.

HOUSTON: COTTON EXCHANGE.

HOUSTON: MAIN STREET.

Houston, in 1890, handled $20,000,000 worth of the cotton crop of the State, sending it aboard vessels, and out to the markets of the world. Along with it have gone 3,250,000 gallons of cotton oil, 60,000,000 pounds of cotton-oil cake, 12,000,000 pounds of sugar, and 1,200,000 gallons of syrup. The Magnolia City handles directly and indirectly a yearly trade of 750,000,000 feet of lumber and 100,000,000 shingles.

Houston is a beautiful and healthful city, with a climate possessed of every charm of tropical countries without their excessive heat. Flowers, fruits and vegetables grow in mid-winter; and wheat, corn and cotton in mid-summer.

HOUSTON: POST-OFFICE.

Austin stands in an amphitheatrical valley on the Colorado River, within view of the blue Colorado Mountains, and has several important State institutions crowning its hills. It is built of light-colored brick and cream-colored limestone, and presents a cheerful and Parisian appearance, befitting its rank as a centre of Texan wealth, culture and education. Dallas lies on the turbid and tortuous Trinity River, amid rich undulating prairies, and is the commercial capital of northern Texas, and the railway and trade centre of a region of 1,000,000 people, producing vast quantities of cotton, corn and wheat. It is the second largest market for agricultural implements in America, and has a general trade of $25,000,000 yearly. Dallas has 120 factories, with a capital of $2,700,000, and an output of $3,700,000. At this favorable point the Santa-Fé, Southern Pacific and Missouri Pacific railway systems intersect; and here are the main offices of the Texas & Pacific Railroad.

One of the modern achievements of Texas is the town of Oak Cliff, which has been called the Brooklyn of Dallas, and occupies the oak-crowned green bluffs 200 feet above that city and about three miles from its busy streets. Early in 1888 T. L. Marsalis, president of the Dallas Land & Loan Company, bought 2,000 acres of open country on this site, and built an elevated railway to it and a belt-line around it, running just below the cliffs, amid pleasant and attractive landscapes. He then farther equipped the prospective town with $75,000 water-works, many miles of graded streets, and a park of 125 acres, with an artificial lake, and a casino and summer-theatre. The primeval forest has been replaced by a model city of many thousands of inhabitants, with 30 miles of streets, lined with 20,000 fancy trees, planted to contrast pleasantly with the selected and saved woodland trees. There are more than 1,500 comfortable houses, and many handsome stores, with churches and schools on every side, and the Oak-Cliff Female University, which aims to be the Vassar of the South. The citizens of Dallas show a great pride in this ideal suburb, with its high and healthy locality, wise plan, and valuable public institutions. The rapid advance of Dallas to the place of the metropolis of Texas has therefore been attended by a corresponding development in Oak Cliff, which in the brief space of three years has become a pleasant and attractive residence-city. The success attending Mr. Marsalis's plan of founding Oak Cliff has given rise to many similar undertakings in the South and West, building up many a charming and prosperous suburban town.

OAK CLIFF: OAK-CLIFF UNIVERSITY.

Fort Worth, on the Trinity River, near the northern edge of the cotton belt, and in the centre of the corn belt, abounds in artesian wells, grain-elevators, flour-mills, stock-yards, great railway repair-shops and many other important industries. This is the headquarters of the Pan-Handle stockmen. As recently as 1879 Fort Worth was the terminus of the longest stage-route in the world, reaching to Yuma, 1,600 miles westward, and traversed by the mail-stages in 13 days. Denison is the chief trading-point for much of the Indian Territory, and an important railway junction, in a rich corn and cotton country. It was founded in 1872, and has been largely advanced by New-England capital, invested in manufactories and land-schemes. Waco, on the Brazos River, is a solidly built and

OAK CLIFF: OAK-CLIFF HOTEL.

prosperous manufacturing city, growing apace, both in population and valuation. San Antonio, the cradle of Texan liberty, is on the winding San Antonio and San Pedro Rivers, with its broad plazas overarched by fine old trees and bordered by shops. The architecture is solid and ponderous, with an evident Spanish feeling; and the venerable Alamo, the property of the State of Texas, represents the old missions and the War of Independence. This city is the foremost wool-market of Texas, gathering in nearly half the wool-clip of the State, amounting, in prosperous years, to 25,000,000 pounds. San Antonio is the largest American market for horses and mules, mainly cheap animals from interior Mexico and the Rio-Grande ranches, and wild stock. Fully 75,000 head are shipped by rail yearly, chiefly to the cotton-planters and negro renters of the eastern Gulf States. Great quantities of hides and grain are handled here, and the city has a lucrative trade with Mexico. In the Mexican quarters of Laredito and Chihuahua, the visitor may study the manners and customs of Vera Cruz and Monterey and Acapulco, with their markets and shops, cafés and churches. Alarconne founded Bexar (now San Antonio) in 1718. The first colony in the State was established on the San-Antonio River by the Marquis de Casa Fuerte, and consisted of 16 families from the Canary Islands. The first Americans ever seen in San Antonio were Philip Nolan's men, captured by the Spaniards on the Tehuacana Hills in 1800. El Paso, on the Rio Grande, was a petty border-hamlet of 200 people in 1870, but has since become an important manufacturing city, with large imports of silver ore, for the local smelters, and live-stock for the refrigerating company. It is about equally distant (1,200 miles) from St. Louis, New Orleans and Mexico; and here, at the famous old "Pass of the North," 3,800 feet above the sea, the Mexican Central Railway crosses the Rio Grande. Laredo, the great railway centre of the Southwest, has important manufactories, and the immense car-works and machine-shops of the Mexican National Railroad, employing 1,000 men. A steel bridge crosses the Rio Grande to the Mexican town of Nuevo Laredo, and is traversed by electric cars.

EL PASO: INTERNATIONAL BRIDGE.

A large number of cities before many years will grow up in the Pan-Handle region. Over 3,000,000 acres in this region are owned by one great corporation — the Capitol Freehold & Investment Company, Limited. This vast domain, probably the largest single holding of property in the United States, was granted to the Farwells of Chicago and Abner Taylor as payment for building the Texas State Capitol, which is one of the noblest public edifices in the United States. The lands are well adapted for agriculture, and late years have demonstrated that the Pan-Handle district is among the best for this purpose of any in that wonderful State. The company controls the lands, and has 150,000 head of cattle on them at present, but the intention is to sell them to actual settlers as fast as that can be done. The Fort-Worth & Denver Railway traverses the lands, and three other roads must necessarily soon extend through them. Several prosperous towns are springing up on the line of the Fort-Worth & Denver route, and along the projected lines of the other roads; and this district will in a few years be a populous stock, fruit, and agricultural country. The altitude of the land varies from 2,000 to 4,000 feet, and the climate is very salubrious, and equal to any in California or Colorado. The Capitol Freehold Land & Investment Company, Limited, is stocked for $10,000,000, John V. and Charles B. Farwell and Abner Taylor owning a large majority of the shares. Its American office is at Chicago, and it has also an office in London, for its large and promising European business.

GALVESTON: CITY HALL.

Newspapers are published in all parts of the State. Among them are nearly a score in the German language, half a dozen in Bohemian, and several Spanish papers. The *Galveston News* was founded in 1842 by Willard Richardson, whose voluminous and faithful *Texas Almanac* has at once chronicled and aided the growth of the State for many years. In 1865, Col. A. H. Belo, a Confederate veteran officer, rode on horseback all the way from Virginia to Galveston, after the surrender at Appomatox, and became associated with Mr. Richardson, whose entire interest in the paper he afterwards acquired. With the aid of Messrs. Jenkins and Lowe, he developed the *News* property in many ways, with new presses, special trains, and perfect system for collecting news, until this became the foremost newspaper of the far Southwest. In 1881, Col. Belo secured a charter for a company to publish papers in Galveston and wherever else in Texas it might wish to; and forthwith established another *News* in Dallas, 315 miles from Galveston, with a fully equipped plant, and an able corps of editors and reporters. The two offices are joined by telegraph; and perfectly represent and serve their respective sections, besides serving their constituencies with the best discussions of State, National and foreign affairs. Thus two great daily papers more than a hundred leagues apart are successfully conducted by one company, to the great advantage of the State; and the swift daily trains running from Galveston to Houston and connecting points to distribute the *Galveston News*, are matched in Northern Texas by the *Dallas News's* special trains to Sherman, Denison, Fort Worth and other thriving cities.

DALLAS: THE DALLAS NEWS.

GALVESTON: THE GALVESTON NEWS.

The Finances of Texas are upon a very favorable basis, on account of the enormous areas of land owned by its government, and which are continually increasing in value, as the State grows more thickly settled. The most prominent of the private banking-houses of Galveston, and indeed the most important in the Southwest, is Ball, Hutchings & Co., at the corner of Strand and 24th Streets. This house has large transactions with many of the incorporated banks of the country, and it carries the name of Galveston to many remote places. It has a connection with the well-known house of Brown, Shipley & Co., in London. The surviving partners of the original firm are J. H. Hutchings and George Sealy, both names well known in Texas. Both are prominently identified with many of the important enterprises of the city. Mr. Hutchings is president of the "Galveston City Company," which laid the foundations for the municipality of Galveston, 50 years ago, and from which all the land titles of the city originate. He has also been president of the Galveston Wharf Company, which controls the water front. Mr. Sealy is interested in railroad enterprises, and was the chief promoter and for a long time president of the Gulf, Colorado & Santa-Fé Railway, the sale of which to the Atchison, Topeka & Santa-Fé Company was made by him. He is a director in the Cotton Exchange, and has other important interests. The transactions of the bank aggregate $90,000,000 annually. For nearly 40 years Ball, Hutchings & Co. have lent substantial pecuniary help to all Southern enterprises, railroads, shipping, commercial and industrial, and they have fairly earned the preëminence they enjoy.

GALVESTON: BALL, HUTCHINGS & CO.

GALVESTON: TAYLOR COMPRESS CO.

DALLAS: CITY NATIONAL BANK.

The oldest financial institution in Dallas is the City National Bank, which received its charter from the State in 1873, as the City Bank. Seven years later it was nationalized; and in 1886 it absorbed, by a consolidation, the Dallas National Bank. Its career has been successful throughout, and its volume of business continually on the increase, until now it has the largest dealings, in all its departments, of any chartered bank in the Lone-Star State. The capital is $325,000; the surplus $150,000; the undivided net profits, $27,000; the deposits, $1,800,000; and the totals above $2,300,000. Its exchange drawings for a single year have exceeded $16,000,000; and the stock is quoted at above $200 a share. This strong bulwark of Texan finance is managed with conservatism, and has the confidence of everyone, locally and abroad; and much of the development of Dallas may rightfully be attributed to the influences proceeding from this powerful and sagacious bank. J. C. O'Connor is president; and E. M. Reardon is cashier.

Railroads were liberally subsidized by the State, with its public lands; and when the civil war broke out, Texas had 400 miles of track in operation: from Indianola to Lavaca; Houston to Galveston, Columbia and Millican; Hempstead to Brenham; Harrisburg to the Colorado River; and other lines. The old San-Antonio Road lay in an air-line from Nacogdoches to San Antonio, and was traversed for 200 years by Spanish and French smugglers, military forces, and traders' caravans, being the most celebrated road in the Southwest. In the north the famous Santa-Fé Trail crossed the Pan-Handle, on its way between Missouri and New Mexico. The old overland mail-stage route ran from San Antonio to El Paso, 652 miles, and thence for 824 miles across New Mexico, Arizona and California to San Diego. The 1,476 miles were made in from 23 to 28 days, in comfortable stages drawn by five mules, and leaving San Antonio fortnightly. Through tickets cost $200, including food on the way. The line followed very closely the present route of the Southern Pacific Railroad, and the stages ran from August, 1857, until the war.

The Texas & Pacific Railway is the great trunk line, connecting the seaport towns of the Gulf of Mexico with those of the Pacific Ocean. It operates 1,500 miles of track, extending from New Orleans westward to El Paso, on the Rio Grande, connecting further at Texarkana with the railway system of the Mississippi Valley; at Shreveport, La., with the network of railways extending to the South-Atlantic coast; at Fort Worth, with the lines extending to the Northwest, Colorado, Kansas and Nebraska; at El Paso, with the lines running down to the city of Mexico and the various Mexican seaports, and with other lines extending to the Pacific Coast. It is a favorite Pullman-car route from St. Louis or New Orleans to San Francisco or Mexico, and to the tourist offers a magnificent array of varied and picturesque scenery. This route traverses the lowlands of Louisiana, a few feet above sea level, the heavy pine-forests of eastern Texas, the blackland prairies of middle Texas, the high plateau of western Texas, and the mountain-district in the extreme west, at an altitude of 5,000 feet; and passes through the prosperous cities and towns of New Orleans, Shreveport, Texarkana, Marshall, Paris, Sherman, Dallas, Fort Worth, Abilene, Colorado, Pecos and El Paso. This railway company also operates a steamboat line on Red River, between Alexandria, La., and Shreveport, about 300 miles.

TEXAS & PACIFIC RAILWAY: FORT WORTH: COTTON PLATFORM.

The Houston & Texas Central Railroad Company was the outgrowth of the enterprise of the sagacious minds of the city of Houston. Construction commenced in 1853. It had progressed 80 miles into the interior when the war put a stop to all railway building in

HOUSTON: HOUSTON & TEXAS CENTRAL RAILROAD DEPOT.

Texas. Active extension was resumed in 1867, and the road was completed to Red River in 1873. The western branch reached Austin in 1871, and the northwestern division reached Ross in 1876. Construction in those days was expensive; equipment and labor were high, and Southern securities were at a discount, and as a result debt got ahead of the resources. It succumbed in 1885 to financial pressure and loss of earnings, mainly owing to the bad cotton crops of several years previous, and passed into the hands of the receivers appointed by the United-States Court. The mortgages have been purchased by and the property sold to the Houston & Texas Central Railroad Company. Although since the Houston & Texas Central was completed in 1876 a number of new lines have been constructed, affecting the territory from which its main business comes, its advantageous position continues to assert itself. In 1876 it carried 336,000 bales of the cotton crop of Texas; in 1889 it carried 422,500 bales. This pioneer Texan line takes the traveler not only through the finest agricultural regions of Texas, but to and through many cities, such as Houston, Corsicana, Dallas, Sherman, Denison, Waco, Austin, Bryan, and Hempstead. These thriving interior cities show the rapid advancement of Texas in line of material progress, while Galveston, the leading commercial entrepôt of Texas, is in easy reach of Houston by rail or water; and San Antonio, with its historic reminiscences and latter-day progress, lies but 70 miles west of the line. Operated in harmony with the Houston & Texas Central Railroad, is the Texas Central Railway, running northwest from Waco to Albany, at the foot of the Great Plains, a distance of 176 miles, through a picturesque region largely given to pastoral pursuits. Its northeastern branch runs from Garrett, on the Houston & Texas Central, through the great agricultural counties of Ellis and Kaufman, to Roberts; also the Central Texas & Northwestern Railway and the Fort-Worth & New-Orleans Railway, which connect the main line with the prosperous city of Fort Worth, 53 miles distant, via the important town of Waxahacohie, and are the connecting links between the route of the Union Pacific from Denver to Fort Worth, and thence to Houston and New Orleans. This railway is one of the foremost trunk routes of the Lone-Star State.

KING'S SANTA GERTRUDES RANCHE: THE PADDOCK.

Cattle-Raising.—Texas raises one seventh of the beef of the Republic, sending enormous quantities to the North every year. The cattle exceed 4,000,000 in number, for the greater part long-horns. Texas also has 2,000,000 swine. The horses and mules number more than 1,000,000. The largest cattle ranche owned by a single individual in the United States is the famous Santa Gertrudes, founded by Capt. Richard King, in 1853, and now belonging to his widow, Mrs. H. M. King, and managed by his son-in-law, Robert J. Kleberg. Forty miles southwest of Corpus Christi in Nueces and Cameron counties are the 700,000 acres of this private principality, fronting on the bay for 40 miles, and enclosed elsewhere by over 300 miles of wire-fence. The herds include over 100,000 head of cattle, mostly improved by short-horns; and there are also 3,000 brood-mares, which are bred largely to the French Percherons. The laborers of the estate number 200 fearless cow-boys, for whose use there are

KING'S SANTA GERTRUDES RANCHE: THE STABLES.

SANTA GERTRUDES RANCHE: MRS. H. M. KING'S RESIDENCE.

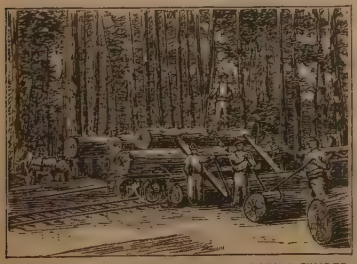
1,200 saddle-horses, besides many farmers, who by the use of improved implements cultivate and produce the large amount of grain and other products consumed upon the ranche. Capt. King founded the first large ranche in the Southwest, and, having no other to model by, he had to devise his own plan and equipment, and so became truly the pioneer of an industry which has since grown into such immense proportions and importance.

A typical Texas cattle-ranche is that of the Matador Land & Cattle Company, Limited, which was organized in Scotland in 1882, under the laws of Great Britain, and has a paid-in capital of $2,500,000 (£500,000), and a surplus reserve of $100,000. This wealthy corporation owns 450,000 acres and leases 300,000 acres more, mainly in Motley and Cottle, Dickens and Floyd counties. Their herds number 100,000 cattle, well-bred and graded with Hereford and Shorthorn stock, of first quality and immense value. One hundred cowboys take care of these vast herds, which 150,000 cattle have been sold. The Matador has been one of the most successful of cattle-raising companies, having held its position throughout the long period of depression in the business, and paying handsome dividends. In due time its imperial domains will be subdivided into stock and grain farms, having a fertile soil and ready access to markets. Experimental farms and vineyards have already been established by the company, to help in this consummation. The post-office is Matador, Motley County, Texas, and the properties are in the Pan-Handle region, which is now being rapidly settled up by a fine class of farmers.

MATADOR RANCHE: COWBOYS.

MATADOR RANCHE: CATTLE ON THE PLAINS.

Lumber.—Sabine Pass is the export-route of the Texas Tram & Lumber Company, of Beaumont, whose dealings in long-leaf yellow pine in many forms are of vast extent. Their saw-mills have a yearly capacity of 50,000,000 feet, and their planing-mills have a capacity of 45,000,000 feet; and 700 men are employed. The resources exceed $1,000,000. The company owns many leagues of pineries, in Jasper and Newton, Tyler and Hardin counties, and has 25 miles of well-equipped steel railway, upon which to carry the logs to the mills. It has built up a very valuable foreign trade, exporting rough and dressed lumber, railway bridge-timbers and cross-ties, car siding and decking, to many distant ports. The company was founded in 1881, and has made rapid and successful progress, in wealth, facilities for shipment, system of grading and quality of lumber. The yellow-pine lumber of the Texas Tram & Lumber Company is of the best and most valuable quality; and yet the facilities for manufacture and shipment are so perfect that it is sold at prices which make competition very difficult.



TEXAS TRAM & LUMBER COMPANY: LOADING TIMBER.

Another immense and notable lumber business was founded in 1877 at Orange, in southeastern Texas, by Lutcher & Moore, formerly in the same industry at Williamsport (Penn.). By introducing the Northern boom system on the Sabine River, they make it easy to bring down 600,000 feet of logs daily, and so to supply their Star and Crescent Mills. The company owns its mills, employing 325 men; a factory making 100,000 shingles daily; 240,000 acres of Calcasieu pine-lands; 20,000 acres of Louisiana cypress; 35 miles of railway, with three locomotives and 80 cars; several vessels for shipping lumber; seven saw-mills, along the Southern Pacific line; and lumber-yards in all parts of Texas. The shipments for 1890 reached the unexampled quantity of 100,000,000 feet, supplying Texas and Colorado, Kansas and Nebraska, and Old and New Mexico. The demand is so large that the mills have to be run night and day, and the white glare of the electric lights overflows their vicinity from sun-down to sunrise.

BEAUMONT: TEXAS TRAM & LUMBER CO.

TEXAS TRAM & LUMBER CO.: A LOGGERS' CABIN.

RAILROADING TIMBER.

ORANGE: THE LUTCHER & MOORE LUMBER COMPANY'S STAR AND CRESCENT MILLS.

The Manufactories of Texas number over 3,000, employing 20,000 persons, with $24,000,000 of capital invested. They make yearly $40,000,000 worth of goods, using $23,000,000 worth of materials. The use of cotton-compresses is due to the need of pressing cotton to greater density, so that ships may carry more weight and offer cheaper freights. The Taylor Compress Company occupies 2½ city blocks (7½ acres) in Galveston, entirely covered with brick warehouses, all under roof, in which vast quantities of cotton are stored and manipulated. The company dates from 1876, when it introduced the most powerful and efficient machinery in use for compressing, and even these ingenious inventions they have now discarded in favor of newer ones, of still greater strength. Here 100 men are employed, preparing by steam and hydraulic cotton-presses, the cotton brought from interior Texas for its long voyage across the Atlantic. W. F. Ladd, the president of the Taylor Compress Company, and his associates at this time practically control all the cotton compressing and warehousing in Galveston. With the continual and healthy development of the cotton-raising industry in Texas, the field of labor in this direction must increase almost indefinitely.

GALVESTON: TAYLOR COMPRESS COMPANY.

GALVESTON: TAYLOR COMPRESS CO.

HISTORY.

The first European visitors to Utah were Capt. Cardenas and his Spanish men-at-arms, who, in the year 1540, reached the San-Juan River. The country of the Utes lay hidden amid her vast mountains, until its lonely plateaus were traversed by the Franciscan friars, Escalante and Dominguez, who came hither in 1776, searching for a route from Santa Fé to Monterey, California. They reached the Utah and Sevier Lakes, and then turned back. In 1825 Great Salt Lake was discovered by James Bridger, a trapper on Bear River: and Gen. Ashley led 120 men from St. Louis through the South Pass and down to Utah Lake, where he built Fort Ashley. In 1826 J. S. Smith and 15 trappers marched from Great Salt Lake to Utah Lake, Rio Virgen, and San Gabriel, California. In 1833 Bonneville crossed northern Utah; and in 1841 Bartleson's party of emigrants, bound for California, marched from Soda Springs to Corinne and into Nevada, misled by mirages, and perturbed by Shoshone signal-fires on the hills. Fremont's explorations of Great Salt Lake followed; and caravans of emigrants began to move across, north of the lake, on their perilous and adventurous way to California.

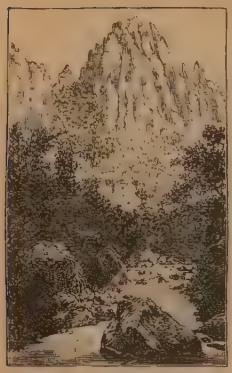
In the spring of 1847, after their expulsion from Nauvoo, 12,000 Mormons lay in camp on the site of Council Bluffs, and Brigham Young and 142 picked men marched westward to find a new home for their people, beyond the United States. After more than three months of arduous travelling, up the Platte Valley and through the South Pass, the pioneers reached the site of Salt-Lake City, and dedicated it to the Lord. July 4, 1847, the first immigration, of 1,653 persons and 580 wagons, started westward from Council Bluffs. Year after year brought its new convoys of religious enthusiasts, until a powerful community had risen in this new Holy Land, with Utah Lake for its sweet Gennesaret, and the River Jordan

STATISTICS.

Settled at	Salt Lake City.
Settled in	1847
Founded by	Mormons.
Became a State,	1896
Population in 1860,	40,273
In 1870,	86,786
In 1880,	143,963
White,	142,423
Colored,	1,540
American-born,	99,969
Foreign-born,	43,994
Males,	74,509
Females,	69,454
In 1890 (U.-S. Census),	207,905
Voting Population,	32,773
Area (square miles),	84,970
U. S. Representatives,	2
Assessed valuation of Property (in 1890),	$105,000,000
Militia (Disciplined),	0
Counties,	25
Post-offices,	259
Railroads (miles),	1,124
Manufactures (yearly),	$4,324,992
Operatives,	2,495
Yearly Wages,	$858,863
Farm Land (in acres),	665,524
Farm-Land Values,	$14,015,178
Farm Products (yearly),	$3,337,410
Public Schools, Average Daily Attendance,	19,750
Newspapers,	51
Latitude,	37° to 42° N.
Longitude,	109° to 114° W.
Temperature,	—20° to 104°
Mean Temperature (Salt-Lake City),	52°

TEN CHIEF PLACES AND THEIR POPULATIONS. (Census of 1890.)

Salt-Lake City,	44,843
Ogden,	14,889
Provo,	5,159
Logan,	4,565
Park City,	2,850
Springville,	2,849
Mount Pleasant,	2,254
Spanish Fork,	2,214
Brigham City,	2,139
Payson,	2,135



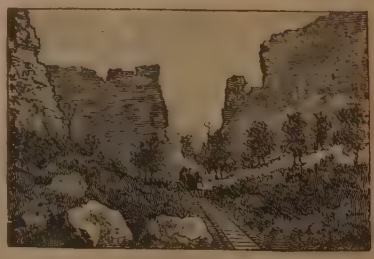
RIO VIRGEN: THE CRAG.

flowing thence to the Dead Sea of the Great Salt Lake. Utah came to the Republic with the great cession made by Mexico in 1848, and in 1850 was formed into a Territory, including, besides its present area, Nevada north of 37°, and Colorado and Wyoming west of the Rocky Mountains, as far north as 42°. In 1857 the Federal officials left Utah, professedly in fear of their lives; and the Territory was regarded as in insurrection. In July the American Army of Utah marched west from Fort Leavenworth, under Albert Sydney Johnston, to chastise the Mormons into submission. Gen. Wells, with 1,250 soldiers of the Nauvoo Legion, fortified Echo Cañon; and the Federal army lay near Fort Bridger all winter, suffering severe privations. The Mormons captured and burnt their trains, and stampeded their cattle, and otherwise harassed the troops. In June, 1858, the Army of Utah, composed of the Fifth, Sixth, Seventh and Tenth Infantry, First Cavalry, Second Dragoons, and Phelps's and Reno's batteries, marched through the mountains and entered the valley. Salt-Lake City and the northern settlements were absolutely deserted by their inhabitants, and the rumble of the guns and caissons and the tread of the infantry were the only sounds heard in the streets. Over 30,000 Mormons had fled through the snows to southern Utah, bearing their household goods, and intending to retire to Sonora; but Gov. Cumming followed this heroic exodus, and persuaded the people to return to their homes.

In 1862 the Nauvoo Legion guarded the mail-routes, from which the United-States troops had been withdrawn for Southern service. In the same year Gen. Conner marched into Utah with the Third California Infantry and encamped for two or three years near Salt-Lake City.

The Mormons have increased with great rapidity, from their prolific natural growth, and from the British, German, and Scandinavian proselytes converted to the faith by zealous missionaries, and brought to Deseret. They are devoted to a rural life, with many scattered villages, self-supporting and exporting nothing. Much of the trade in the Territory is carried on by Zion's Co-operative Mercantile Institution; and other operations, such as dairying, farming and irrigation are advanced by co-operative companies. The Mormon vote exceeds 15,000, to 12,000 Gentile votes. Ogden is held by the latter party, and Salt-Lake City has been carried in the same way, but the farming country is Mormon.

The National officials concede the sincerity and enthusiasm of the Mormon people, but fear the unlimited power of the clergy, and deprecate the presumed idea that the Church and its laws transcend the laws and edicts of the American Republic. The Mormons claim that they have sworn loyalty to the National laws, and that the persecutions raised against them are on account of their religious views. They have provided punishment for polygamy in their proposed State constitution, and now demand the privileges of Statehood, as due to the population and wealth of Utah. The Edmunds law of 1882 vacated all Utah elective offices, disfranchised polygamists, annulled woman-suffrage, and closed the jury-box to adherents of the doctrine of polygamy. The Edmunds-Tucker law of 1887 confiscated all Mormon Church property, except some church buildings and priests' houses, and turned its proceeds into the school-fund.



CASTLE GATE.

The Name. — Utah is an Indian word, meaning "A home on a mountain-top." The Mormons called their State DESERET, which means "The Honey-Bee." The word is taken from the Book of Mormon. Utah is also called THE INTER-MOUNTAIN TERRITORY.

The Arms of Utah, adopted in 1850, bear an old-fashioned conical bee-hive, on a stand surrounded by flowers, and with bees hovering about it, emblematic of the industry of the people.

The Governors have been: *Territorial*, Brigham Young, 1850–4; E. J. Steptoe, 1854–7; Alfred Cumming, 1857–61; J. W. Dawson, 1861; Stephen S. Harding, 1861–4; Jas. D. Doty, 1864–5; Chas. Durkee, 1865–9; J. Wilson Shaffer, 1869–71; Geo. L. Woods, 1871–3; Samuel B. Axtell, 1873–5; G. W. Emery, 1875–9; E. H. Murray, 1879–86; C. W. West, 1886–9, and A. L. Thomas, 1889–93. The first State Governor was Heber M. Wells.

GREAT SALT LAKE: GARFIELD BEACH AND GIANTS' CAVE.

The President of the Mormon hierarchy is Wilford Woodruff, a venerable man from Connecticut. The Presiding Bishop, Wm. B. Preston, is a Virginian. The tithes of the Church yearly reach $700,000, which is used in schools, missions, charities, and the work on temples. The official statistics report the Mormon Church as consisting of twelve apostles, 70 patriarchs, 3,919 high priests, 11,805 elders, 2,069 priests, 2,292 teachers, 11,610 deacons, 119,915 officers and members, and 49,303 children. The Mormon Church proclaims itself to be a theo-democracy, resting upon the will of God and the voluntary consent of the people.

ECHO CANON: DEVIL'S SLIDE.

The Book of Mormon is one third as large as the Bible, and contains 16 sacred books. It tells of the coming of the Jaredites to America, after the confusion of tongues at Babel (B. C. 2,100), and their destruction for evil behavior, 1,500 years later. The prophet Ether wrote their history, which was found by a second colony, led from Jerusalem by the just man Lehi (B. C. 600), landing in Chile, and populating North America. In time this people separated into the favored and blessed Nephites and the degenerate Lamanites. About A. D. 400, the Nephites became evil, and were destroyed by the Lamanites, who relapsed into savagery, and became the progenitors of the Indians. It is claimed that the books of Ether were abridged by the Nephite prophet Mormon, who also recorded the history of his own nation, and hid the tablets in the hill of Cumorah, where they were found by Joseph Smith, the founder of the Church of Jesus Christ of Latter-Day Saints. Smith was slain in 1844; and Brigham Young held the Presidency from 1844 until his death in 1877.

Descriptive.—The general height of Utah is 6,100 feet above the sea, and 5,000 square miles are more than 9,000 feet high. The massive and snowy Wahsatch Range comes in on the north, and runs southward, gaining in altitude until southeast of Salt-Lake City it reaches a height of 12,000 feet. It is a very conspicuous range, and forms the eastern wall of the Great Basin. One of the chief peaks is Mount Nebo, 11,680 feet high, south of Utah Lake. The cañons of the Wahsatch, American Fork, Provo, the Cottonwoods, Ogden, and others, are full of picturesque scenery, and thousands of tourists visit them every season. The Uintah Mountains run east from the Wahsatch Range for 150 miles, between the Bridger Basin and the Uintah Valley, the chief summits being Mount Emmons, (13,694 feet), Gilbert's Peak (13,687), Wilson's Peak (13,235), and Burro Peak (12,834). Two great plateaus fall away southward from the Uintah Range, ending in the singular Book Cliffs, the Azure Cliffs, and other receding

ENTRANCE TO OGDEN CANON.

plateau-fronts, richly and brilliantly colored, and frowning over the cañons of the Grand and Green Rivers. Southeastern Utah lies on a line of plateaus from 3,000 to 11,000 feet high, broken by the amazing Grand Cañon of the Colorado, and cut into by hundreds of sunless and lifeless gorges, in some of which even the forming streams have died. The arid uplands are carved by Nature into weird forms, and being nearly a mile above the sea-level they have but little value, except for grazing. They bear singular Indian names, Kanab, Kaiparowitz, Kaibab, Awapa, Aquarius, Colob, Tavaputs, Markagunt, Masuk, Paunsagunt, Tununk and Yampa.

OGDEN: UNION RAILWAY STATION.

The Cache and Malad Valleys, running northward from the Great Salt Lake into Idaho, and the Bear-Lake Country, are carefully irrigated and tilled, and shelter a score of Mormon colonies. The Salt-Lake Basin, 150 miles long, from Nephi to the Bear-River Gates, has a breadth of from 40 to 50 miles, and contains nearly all the population of Utah. The San-Pete Valley, the granary of the Territory, lies southeast of the Salt-Lake Basin, almost surrounded by rugged mountains, and occupied by Mormon villages. The valleys of the Sevier, the Rio Virgen, and the Jordan, and the Tooele and Utah-Lake Valleys have farming populations. West of the Sevier and Salt-Lake Valleys lies the elevated plateau of the Great Basin, with its rivers dying in barren sands or salty pools, its narrow and craggy mountains, and weary leagues of arid desert. This huge table-land between the Wahsatch Range and the Sierra Nevada has no outlet to the sea, and its valleys contain lakes which fade away in the dry season to expanses of mud encrusted with salt. There are a score of mountain-ranges running north and south, some of them short, and others more than a hundred miles long. They consist of bare rock, with small forests of pine and aspen in their high and hidden cañons, whose only inhabitants are elk, antelope, mule-deer and bears, with smaller wild animals. There are a few oases in the Great Basin, but nearly its whole extent is absolutely sterile, with no possibility of irrigation. The Great-Salt-Lake Desert fills a large part of this area, with 5,000 square miles of desolation. The forests of white pine on the Wahsatch, and red pine on the Oquirrh, and the grassy openings of the uplands are succeeded by the sage-brush and cacti of the west, and by broad areas devoid of vegetation. These plateaus and desert lands are inhabited mainly by coyotes and owls, lizards, centipedes, horned toads, crickets, and other small and unpleasant creatures, forever free from the perils of human intrusion, in their vast and lonely solitudes.

Great Salt Lake once covered 42,000 square miles, and its outlet flowed through the Snake and Columbia Rivers. It has been reduced to its present size by the evaporations of unknown centuries. The lake is subject to great changes in size, rising from an area of 1,700 square miles in 1849 to 2,360 square miles in 1870, since which it has decreased. The average depth is 20 feet; and the surface is broken by nine large islands and several islets. The saline matter in the water varies from 13.8 to 23.4 per cent. of its weight, which is from four to six times the amount in the Atlantic Ocean. At Garfield Beach there is a popular summer-resort, with a band playing in a huge wooden pavilion, cafés, bath-houses, piers, hotels,

SALT-LAKE CITY: MORMON TEMPLE, TABERNACLE AND ASSEMBLY HALL.

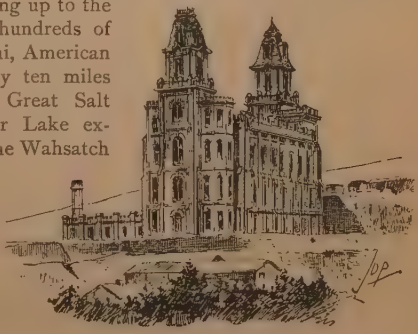
and the usual holiday concomitants. The surf is long, low, foamy and hissing, and without undertow; the waves are heavy; and the water is warm and bitterly salt. Sinking is almost impossible, and people in bathing-suits float about on their backs, gently paddling over the surface, or treading with their feet in a semi-upright position, and bumping into each other, like canal-boats adrift. Hundreds of persons are seen here afloat at one time. The Oquirrh Mountains rise almost from the sandy beach, and other lofty ranges nearly encircle the lake, their rich browns fading into misty blues in the distance. The transparent waters assume a strange variety of hues, delicate greens, ultramarine and turquoise blues, and sombre blackish expanses. Off-shore, mountain-islands, like Antelope and Stansbury, one 16 miles and the other 20 miles long, rise 3,000 feet above this mysterious sea, with cliffs of white sandstone and long grassy slopes. Many people have found about Salt Lake a remarkable climate, combining the light pure air of the snowy mountains with the salty and marine breath of the inland sea, and yielding in each inhalation the tonic properties of the Alps and the Atlantic. In the summer, the Utah people and tourists visit the lake by thousands, bathing chiefly and boating a little, in a salty sea higher than the Alleghany Mountains. The lurid and electric splendor of the sunsets over the lake, the wonderful views from the promontory of the Oquirrh, the weird gloom of Giants' Cave, the lonely solitudes of the western islands, inhabited only by myriads of gulls and pelicans, the snowy harvests of the salt-farms, afford scenes of abiding interest and diversity. Garfield Beach is 22 miles from Salt-Lake City, and crowded excursion-trains run several times a day in summer, the round-trip fare being 50 cents. Syracuse Beach, and Lake Park, reached by rail, from Ogden, are the favorite resorts of people living near that part of the lake. Fremont was the first white man who visited this locality (then a Mexican lake), in 1842, reconnoitering the islands in a rubber boat. Eight years later, Capt. Stansbury carefully explored the lake and its bays and shores.

SALT-LAKE CITY: BEE-HIVE HOUSE.

SALT-LAKE CITY: UNIVERSITY OF DESERET.

Utah Lake is a beautiful expanse of fresh sweet water, 25 miles long and 10 miles wide, abounding in large speckled trout and water-fowl, and fed by streams from the Wahsatch Range. The shores are grassy slopes, sweeping up to the bases of the mountains, and occupied by hundreds of farms, and the Mormon villages of Provo, Lehi, American Fork, and Springville. Sevier Lake, 25 by ten miles in area, lies 100 miles south-southwest of Great Salt Lake, and receives the Sevier River. Bear Lake extends into Idaho, amid the cold fastnesses of the Wahsatch Range, and surrounded by Mormon hamlets.

The Grand River from Colorado and the Green River from Wyoming unite in the east, each flowing in the bottom of a profound cañon, and form the Colorado of the West, which pours its dark flood through Arizona to the Gulf of California, secluded in a series of gorges unequalled elsewhere in the world.



MANTI: MORMON TEMPLE.

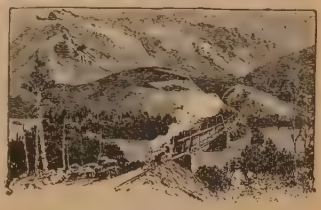
The Climate is subject to abrupt and wide variations between the seasons and between day and night. Salt-Lake City has a mean yearly temperature of 51½°, and a rainfall of 15.72 inches; but in the south and west and along the lower plateaus the rainfall drops below ten inches. The Wahsatch and Uintah ranges receive a much greater amount of moisture; but the water falling on the plains is not enough for raising crops without irrigation. The temperature of the valleys is frequently mild and delightful, with an elastic and bracing air, although Cache Valley has severe winters, and the Rio-Virgen country is semi-tropical. The winters in the Basin are moderate, with light falls of snow, followed by radiant and verdant springtimes and early summers, and then by a heated term, with dry and dust-laden storms, failing streams, and the parching of all unirrigated vegetation. In the long autumn the air clears, and waves of splendid forest-coloring adorn the mountains, until the mantle of snow descends, and inaugurates the winter. A group of army surgeons commends the Utah climate, with out-door life and simple fare, for the cure of phthisis, asthma, chronic pneumonia and bronchitis (without heart trouble), and consumption (when not too far advanced). The great altitude and low barometric pressure quicken respiration and circulation, and the dry air and cool nights invigorate the whole system. The Utah Hot Springs, ten miles north of Ogden, have a temperature of 125°, and are so impregnated with iron that all the surrounding ground is stained red. Beck's Hot Springs are three miles north of Salt-Lake City; and the famous Warm Springs, with waters like those of Harrowgate, and strongly sulphurous, flow in the environs of the city. These resorts and others have been improved by bath-houses.

OGDEN AND THE WAHSATCH MOUNTAINS

Farming. — The arable land of Utah covers 3,000,000 acres, watered by 1,000 miles of canals. The Bear-River Canal will have cost $2,000,000, being 50 miles long, 20 feet wide and five feet deep. The paradise which the Mormons enjoy in their green valleys has been attained only by an enormous outlay of ingenious labor; and if the irrigation-works should be suspended for but a few weeks the whole country would return to its natural desert state. Even now, in dry weather, Salt-Lake City is one of the dustiest places in the world, with the winds from the Wahsatch and Oquirrh Mountains stirring up its broad avenues. The irrigated lands are growing in area, and produce yearly 6,000,000 bushels of grain, 600,000 bushels of fruit, and 500,000 tons of lucerne hay. Wine is made on the Colorado; raisins and almonds come from the Rio-Virgen country; and cotton-fields whiten the valleys around St. George. The live-stock of Utah has risen from 500,000 head in 1876 to 3,000,000 in 1890. When the grazing gives out on the lower benches, the flocks and herds advance to the higher ranges, finding millions of acres of fattening bunch-grass, until as the snow-line recedes they reach the cool plateaus and the grassy valleys of the mountains. When they retreat to the lowlands in the autumn the grass there has been cured on the stalk, for winter forage.

Mining in Utah between 1871 and 1891 produced $150,000,000, two thirds in silver, with $40,000,000 in lead, and the rest in gold and copper. Utah is next to Colorado and Montana as a lead-bearing country, and its yearly product exceeds 24,000 tons. It is found in all the mines, and is the chief source of the precious metals. The ores are of low grade, readily reduced by smelting. There are large silver and lead mines in the Wahsatch Range, around Park City, where the Ontario alone has produced above $22,000,000. In the Cottonwood cañons are mines which have sent out $10,000,000. Bingham Cañon cuts deep

into the Oquirrh Mountains, and the surrounding region is occupied by many mines, rich in low-grade lead and silver, with some gold. Juab County hides among its mountains the Tintic district, including the Eureka-Hill, Mammoth, and other claims, with their costly machinery and valuable outputs. The Horn-Silver chimney of ore, in Beaver County, produced 90 tons of ore daily for four years, valued at $13,000,000. There are other profitable mines around Frisco. Antimony and cinnabar are mined at Marysvale. Gypsum is mined and milled at Nephi; geocerite, a singular natural paraffine, in the central counties; sulphur, at Cove Creek; saltpetre, near Springville; and alum, near the Promontory Range. Elsewhere occur borax and petroleum, graphite and tripoli, fire-clay and kaolin, alabaster and lithographers'-stone, and other minerals. Salt finds a ready market for chloridizing silver ores. The evaporation of Great Salt-Lake leaves it upon the shores, to be re-absorbed by the spring-tides, or gathered into great snowy piles, ready for shipment. Over 40,000 tons are obtained in this way yearly. There are beds of rock-salt stretching for miles along the Sevier. The mines near Nephi and Salina produce 5,000 tons yearly. Asphaltum is sent out from Spanish-Fork Cañon and from the Grand-River Valley, where it appears in molasses-like springs, in putty-like black masses, and in flinty lumps. Over 3,000 tons of gilsonite (a fine, dry asphaltum) are hauled every year from Fort Duchesne 80 miles to Price station, whence it is sent East to be made into lacquers and pavements. Of the building-stone, the most used are the marbles and limestone of Logan, the red sandstones of Red Buttes, the white sandstone of San Pete, the granites of Little Cottonwood, the green and purple slates of Antelope Island, and the flagging stone of Park City.



WEBER CANON.

There are enormous beds of lignitic coal near Green River, containing 40 per cent. of pure carbon. The deposits border both sides of the Wahsatch Range, and are utilized for stoves, steam and coking. The yearly product exceeds 250,000 tons. The chief iron deposits are in Iron County and around Tintic, where millions of tons of ore appear. Near Iron City there is a belt of compact Bessemer ore, pronounced by Prof. Newberry to be "unexcelled in intrinsic value by any deposits in the world." Copper is mined at Tintic.

Government. — The governor and secretary are appointed by the President. The militia of Utah was organized in 1850, as the Nauvoo Legion, composed of the First Cohort, made up of a regiment of cavalry and a battalion of life-guards, and the Second Cohort, including Scott's regiment and two battalions, with several artillery companies. In 1870, when it numbered 13,000 men, Gov. Shaffer forbade the review of the Legion; and a year later its assembling companies were dispersed by Federal authority. The Penitentiary is near Salt-Lake City; the Reform School, at Ogden; and the Asylum for the Insane, near Provo. The Industrial Home, at Salt-Lake City, was provided by Congress for women renouncing polygamy, and receives also their children.

Education has been maintained by the Mormons in schools. After the commissioner of public schools was made an appointee of the Supreme Court (by the Edmunds-Tucker law), the hierarchy founded several church-schools, where the Bible, the Book of Mormon and the Book of Doctrine and Covenants are used as text-books. The University of Deseret is a Territorial institution at Salt-Lake City. It is a high and normal school, with 14 teachers and 330 students; and dates from 1850. The Methodist University at Ogden was founded in 1890. The Brigham Young College is a Mormon institution, founded at Logan in 1878, and with 260 students. Ogden has a large and handsome

Adler & Sullivan, Architects.

SALT-LAKE CITY: HOTEL ONTARIO.

military academy. Seven Christian sects maintain in Utah 100 schools, with 230 teachers and 9,000 students. Five of these are academies, at Salt-Lake City; and Proctor Academy, at Provo, belongs to the New-West Education Commission (Congregational). The Salt-Lake Collegiate Institute (Presbyterian) has 300 students; and St.-Mark's School, in connection with the Episcopal Cathedral has 450. Utah contains 65 non-Mormon churches, 25 being Methodist, 15 Presbyterian, and seven each Catholic and Episcopal.

The newspapers of Utah include nine dailies, at Salt-Lake City, Ogden and Provo, and 40 others. Papers are published at Nepni, Logan, Park City, Richfield, Manti, Huntsville, Heber City, American Fork, Eureka and Beaver.

National Institutions. — Fort Douglas has a beautiful situation three miles east of and 500 feet above Salt-Lake City, overlooking the Great Salt Lake, the Jordan Valley and the Oquirrh Mountains. The barracks and officers' quarters are of stone, amid pleasant lawns and orchards. The only other military post is Fort Duchesne. There are 1,900 Utes on the Uintah and Uncompahgre Reservations, in the northeast, covering 4,000,000 acres of deserts and mountains. They are blanket Indians, hunters and horsemen. There are roving bands of Shoshones in the north, and of Piutes in the south.

LOGAN: MORMON TEMPLE.

Chief Cities. — Salt-Lake City rises like a beautiful vision out of the desert southeast of Great Salt Lake, with miles of wide and verdurous streets, refreshed by running streamlets, and small houses surrounded by lawns, gardens and orchards. The mountain-views are of unrivalled grandeur, and include the lofty Wahsatch Range, and the distant Oquirrhs. Temple Block, the Sacred Square, contains the chief Mormon ecclesiastical buildings. The Tabernacle, with a huge turtle-shaped roof, has seats for 8,000 people in its oval auditorium, and contains one of the sweetest organs in America. The Mormon Temple is a large and many-towered pile of grayish-white granite, on which over $4,000,000 have been spent. The Tithing House, the headquarters of Zion's Coöperative Mercantile Institution, the Assembly Hall, the Endowment House, the Lion House, the Bee-hive House, and the Gardo House are near by.

Ogden is the gate-city of Utah, on the Weber River, not far from the lake, with five railroads now reaching it. There are several fine public buildings, and prosperous shoe and woollen factories and railway repair-shops. Logan, near the beautiful Logan Cañon, is an important shire-town, with a great Mormon temple. St. George, in the Rio-Virgen Valley, and the chief town of southern Utah, was founded by order of Brigham Young, in 1862, and has a Mormon temple of red sandstone, built in 1873 81. The alkaline desert has here been changed to a garden. Provo, founded in 1850, near Utah Lake, has woollen mills and foundries, and seems destined to be one of Utah's foremost railroad centres. It nestles at the foot of Mount Io, in a lovely crescent-shaped valley, bounded by the Wahsatch Range. Nephi, "the little Chicago," stands at the gateway of the San-Pete and Sevier Valleys, and ships yearly 2,500 tons of wool, besides much salt and flour.

The Railroads of Utah include the Union Pacific, from the Wyoming line to Ogden, 73 miles; from Ogden to Frisco, 275 miles; from Lehi to Silver City and Tintic, 57; from Echo to Park City, 31; from Salt-Lake City to Tooele and Stockton, 37; and from Ogden into Idaho, 76. The Central Pacific has 157 miles of track, from Ogden to the Nevada line. The Utah Central runs from Salt-Lake City to Park City. The Denver & Rio-Grande Western crosses the weird plateaus of the Green-River country, to Salt-Lake City, with branches to the Schofield Coal Mines, Salina, Alta, and Bingham Cañon. The San-Pete Valley line runs from Nephi to the Wales coal-mines.

The Manufactures of Utah employ 5,000 persons, with a yearly product of $9,000,000, half of which is from Salt-Lake City. The Germania, Hanauer and Mingo smelters are south of Salt-Lake City, in the Jordan Valley, and have plants valued at $400,000.

HISTORY.

The first European to see Vermont was Champlain, who in 1609 came south from Canada, with a war-party of Hurons, on a foray against the Iroquois. By virtue thereof, this domain appeared on the maps of New France, and was claimed by the French Government. The first colony from France established Fort St. Anne on Isle la Motte in 1665, and was opposed by an outpost at Chimney Point, built by the Dutch from Albany. In 1724 Massachusetts troops founded Fort Dummer, in Brattleboro. After the conquest of Canada, in 1760, the little French settlements along Lake Champlain disappeared, and the Winooski Valley ceased to be the marching route of hostile war-parties, descending on rural New England. After 1741 the district suffered separation from Massachusetts; and it was claimed that the frontier of New Hampshire ran as far west as that of Massachusetts, and therefore included Vermont. Gov. Wentworth of New Hampshire issued charters for 138 townships in the so-called Hampshire Grants. But New York also claimed Vermont, because Charles II.'s charter to the Duke of York granted him "all the lands from the Connecticut to the east side of the Delaware Bay;" and a new tide of colonists poured in, with titles issued by New York, endeavoring to oust the New-Hampshire grantees. The latter, under the direction of Ethan Allen and Seth Warner, formed themselves into the "Green-Mountain Boys," and fought the intruders stubbornly for many years. King George III. confirmed New York in the possession of Vermont in 1764; but the outbreak of the Revolution impaired the value of this title. In 1775 Ethan Allen and 83 Green-Mountain Boys surprised the great British stronghold of Fort Ticonderoga, and compelled its surrender, "in the name of the Great Jehovah and the Continental Congress." Crown Point also fell into the hands of the

STATISTICS.

Settled at	Brattleboro.
Settled in	1763
Founded by	Massachusetts men.
Admitted as a State,	1791
Population in 1860,	315,098
In 1870,	330,551
In 1880,	332,286
White,	331,218
Colored,	1,068
American-born,	291,327
Foreign-born,	40,959
Males,	166,887
Females,	165,399
In 1890 (U. S. Census),	332,422
Population to the square mile,	36.4
Voting Population,	95,621
Vote for Harrison (1888),	45,192
Vote for Cleveland (1888),	16,788
Net State Debt,	None.
Assessed Valuation of Property (1890),	$162,000,000
Area (square miles),	9,565
U.-S. Representatives (in 1893),	2
Militia (Disciplined),	784
Counties,	14
Post-offices,	545
Railroads (miles),	921
Vessels,	33
Tonnage,	5,255
Manufactures (yearly),	$31,354,360
Operatives,	17,540
Yearly Wages,	$5,164,479
Farm Land (in acres),	4,882,588
Farm-Land Values,	$109,346,010
Farm Products (yearly)	$22,082,656
Public Schools, Average Daily Attendance,	46,061
Newspapers,	81
Latitude,	42°44′ to 45°43′ N.
Longitude,	71°38′ to 73°25′ W.
Temperature,	—32° to 97°
Mean Temperature (Montpelier),	43°

TEN CHIEF PLACES AND THEIR POPULATIONS. (Census of 1890.)

Burlington,	14,590
Rutland,	11,760
St. Albans,	7,771
Brattleboro,	6,862
Barre,	6,812
St. Johnsbury,	6,567
Bennington,	6,391
Colchester (Winooski),	5,143
Montpelier,	4,160
Bellows Falls,	3,092

LAKE CHAMPLAIN FROM ST. ALBANS.

Vermonters, who captured 234 cannon and vast military supplies, many of which were sent to the American army besieging Boston. Vermont troops attacked Montreal; blockaded the St. Lawrence by batteries, at Sorel; captured St. Johns; and joined in the assault on Quebec. In 1777 Gens. Fraser and Riedesel shattered the rear-guard of St. Clair's American army, at Hubbardton. A month later Gen. Stark and 1,600 New-England militia defeated Cols. Baum and Breyman and 1,500 Hessian grenadiers and dragoons, Canadians and Tories, storming their batteries, near Bennington, and causing them a loss of 934 men. The Bennington Battle Monument stands on State-Arms Hill, at Bennington Center, commanding majestic views of the Green and Taconic Mountains and the Hoosac and Walloomsac Valleys. It was begun in 1887. The material is dolomite, or magnesian limestone; and the structure takes the form of an obelisk, 301 feet high, with stairs inside, and windows to look out over southern Vermont. Two German cannon taken on this field by Stark's heroes are sacredly preserved at the State House in Montpelier. The British authorities endeavored to win over Vermont to their cause, but without avail, although Congress (influenced by New York) excluded her delegates in 1776 and 1782. There is a tradition that Ethan Allen was offered the title of Duke of Vermont if he would make his State into a Crown province, and raise two regiments of red-coats for the royal service. Gov. Chittenden and Ira Allen sagaciously coquetted with the British authorities for some years, achieving the valuable results of delivering the unprotected frontier from hostile forays, and of alarming the Continental Congress, which refused to acknowledge the Statehood of Vermont. As long as the United States ignored her, she claimed the right to negotiate with England as an independent power. On the 17th of January, 1777, the convention at Westminster declared Vermont "a separate, free and independent jurisdiction or State;" and the anniversary of that day is still celebrated by loyal Vermonters, wherever they may be, wide-scattered over the continent.

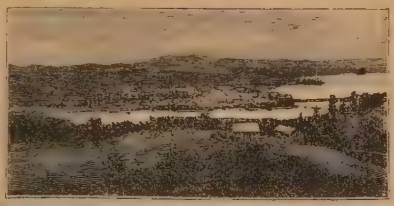
GREEN MOUNTAINS: MOUNT MANSFIELD.

In 1790 the last differences with New York were happily adjusted, Vermont paying $30,000, in consideration of which the older State renounced all claims to her territory. Thus ended the long contest between the Puritans and Patroons, among the passes of the Green Mountains. In 1791 Vermont entered the Union, being the first State to be added to the original thirteen, the admission being warmly advocated by New York.

BELLOWS FALLS AND THE CONNECTICUT RIVER.

In the War of 1812, Burlington was fortified and garrisoned, and 2,500 Vermont volunteers joined in the victorious fight against Sir George Prevost, at Plattsburg. When the late civil war broke out, Gen. Scott said: "Give me your Vermont regiments; all your Vermont regiments. I remember the Vermonters at Lundy's Lane." The Green Mountains will long cherish the heroism of the Second Vermont at Bull Run, the famous First Vermont Brigade at Marye's Heights, the Wilderness and Cedar Creek, and

Stannard's Vermont Brigade at Gettysburg. Out of 37,000 enrolled militia, Vermont sent 34,238 soldiers into the field, and lost 5,128 dead, and as many more ruined by wounds or disease, being a larger percentage than befell the troops of any other Northern State. No Vermont regiment gave up its colors in battle. October 19, 1864, 22 Confederate guerillas visited St. Albans in disguise and robbed the banks, escaping into Canada with $200,000, after a hot pursuit. In 1866, 1,200 Fenians, "the right wing of the army of Ireland," marched from Franklin across the Canada line and in a day or two marched back again, very hungry. In 1870 another Fenian raid hence was repulsed by embattled Canadian farmers.



NEWPORT: LAKE MEMPHREMAGOG.

The drain of population to the West has kept Vermont nearly stationary in population; and in 1889 the State commission found over 200,000 acres of abandoned fields growing up into woodland. Negotiations were entered into to re-populate the empty farms with Swedish colonists. Meantime, many French-Canadians, the most prolific race on the globe, have moved into the northern counties and the factory-towns. In some towns farming-lands may be bought for from $3 to $5 an acre, in healthy and beautiful localities.

The Name of the State was ordered to be *New Connecticut* by the Westminster Convention proclaimed in 1777. When they learned that a district on the Susquehanna bore that title, the name was changed to VERMONT, from the old French *Verts Monts* or "Green Mountains." There is a tradition that the Rev. Samuel Peters and his followers broke a bottle of spirits on Mount Pisgah, in 1763, and named the country *Vert Mont*. Vermont is popularly called THE GREEN-MOUNTAIN STATE, in allusion to its chief geographical feature, beautiful in scenic effect, and rich in inexhaustible treasures of marble and granite.

RUTLAND AND KILLINGTON PEAK.

The Arms of Vermont consist of a green landscape, with a red cow, yellow erect sheaves, and a tall pine-tree; and in the background the blue Mount Mansfield and Camel's Hump, as seen from Lake Champlain, against a yellow sky. The crest is a buck's head. The motto is VERMONT: FREEDOM AND UNITY. Two crossed pine-branches serve as supporters to the shield. The State flag resembles the National standard, except that the blue union contains a large white star, in which the Vermont arms are emblazoned.

The Governors have been Thomas Chittenden, 1777–87 and 1790–97; Moses Robinson, 1789–90; Paul Brigham (acting), 1797; Isaac Tichenor, 1797–1807 and 1808–9; Israel Smith, 1807–8; Jonas Galusha, 1809–13 and 1815–20; Martin Chittenden, 1813–5; Richard Skinner, 1820–3; Cornelius Peter Van Ness, 1823–6; Ezra Butler, 1826–8; Samuel Chandler Crafts, 1828–31; Wm. Adams Palmer, 1831–5; Silas H. Jennison, 1835–41; Charles Paine, 1841–3; John Mattocks, 1843–4; Wm. Slade,

MONTPELIER.

BRATTLEBORO, AND THE CONNECTICUT RIVER.

1844–6; Horace Eaton, 1846–8; Carlos Coolidge, 1848–50; Chas. Kilbourne Williams, 1850–2; Erastus Fairbanks, 1852–3 and 1860–1; John Staniford Robinson, 1853–4; Stephen Royce, 1854–6; Ryland Fletcher, 1856–8; Hiland Hall, 1858–60; Frederick Holbrook, 1861–3; John Gregory Smith, 1863–5; Paul Dillingham, 1865–7; John B. Page, 1867–9; Peter Thacher Washburn, 1869–70; George W. Hendee (acting), 1870; John W. Stewart, 1870 2; Julius Converse, 1872–4; Asahel Peck, 1874–6; Horace Fairbanks, 1876 8; Redfield Proctor, 1878–80; Roswell Farnham, 1880–2; John L. Barstow, 1882 4; Samuel E. Pingree, 1884 6; Ebenezer J. Ormsbee, 1886–8; Wm. P. Dillingham, 1888–90; and Carroll S. Page, 1890–92.

Descriptive.—The Green Mountains traverse Vermont from north to south, midway between the Connecticut River and Lake Champlain. They form a lofty range from Massachusetts to the centre of Vermont, breaking there into two chains, running east of north and northeast to Canada. There are 18 peaks above 3,500 feet high. The mountain sides are largely covered with grass, or with the dark-green spruce forests from which they derive their name. Many of these noble Appalachian highlands are based upon vast masses of fine marble, of high economic value. The chief of the Green Mountains are Mount Mansfield, 4,389 feet; Killington Peak, 4,241; Jay Peak, 4,018; Pico, 3,935; Shrewsbury, 3,838; Camel's Hump, 4,088; Mount Equinox, 3,706; and Ascutney, 3,165. Among the favorite summer-resorts in the Green Mountains is Manchester, near Mounts Equinox and Æolus; Stowe, near the magnificent scenery of Mount Mansfield and Smugglers' Notch; and Waterbury. There are hotels on Mount Mansfield and Killington Peak, overlooking vast areas of northern New England.

BENNINGTON: CATAMOUNT MONUMENT.

Lake Champlain is 118 miles long, with an extreme width of 14 miles, a depth of 399 feet, and a height above the sea of 93 feet. By the aid of canals and rivers, navigation is practicable to Montreal, or to Albany and New York. The waters abound in salmon-trout, shad, muskallonge, sturgeon, pike, pickerel, bass, and whitefish. Vermont is the only New-England State shut out from the sea, but her noble lake gives her a large maritime commerce, a thousand vessels entering the port of Burlington yearly, with imports and exports reaching $12,000,000. The second steamboat ever built was the *Vermont*, launched at Burlington by John and James Winans, in 1809, and run on Lake Champlain for six years. The new *Vermont* and *Chateaugay* belong to the Champlain Transportation Company, and ply up and down the lake. Of late years yachting has become an important feature of summer-days, the chief organization being the Lake-Champlain Yacht Club, with a handsome club-house at Burlington, and a membership of 400. The harbors of Burlington, Swanton and Plattsburg are protected by long artificial breakwaters.

BENNINGTON: BATTLE MONUMENT.

The southern third of Lake Memphremagog's 30 miles is in Vermont, and the rest in Canada. Lake Bomoseen, at Castleton, lies in a deep rocky basin eight miles long, with pleasant scenery. Willoughby Lake, six by two miles, filling a profound chasm between two mountains; Lake Dunmore, five miles long, near Middlebury, and environed by fine hills; St.-Catherine, Caspian, Maidstone, and scores more of beautiful lakes diversify the mountain-land. On

the Champlain side the main streams are Otter Creek, 90 miles; the Winooski, 70; the Lamoille; and the Missisquoi, 75. The Clyde, Barton and Black flow into Lake Memphremagog; and the Passumpsic, Wells, White, and Otta Queechee into the Connecticut. The little rivers of Vermont traverse wide and fertile meadows, amid great beauty of scenery, with the graceful American elms and the locally famous sugar-maples bending over their pellucid waters.

UNIVERSITY HALL.

BILLINGS LIBRARY.

BURLINGTON: UNIVERSITY OF VERMONT.

The Climate is subject to sudden and great changes, with prolonged snowy winters; but the clear and pure air keeps the death-rate low and the people sturdy. The sanitariums in and near Brattleboro were once of wide renown; and at the present time there are several of these institutions on the noble bluffs near Burlington, viewing the lake and mountains. In the lower Missisquoi valley flows the famous Sheldon Spring, a very unusual alkaline-saline water, used for hot and cold baths, and beneficial to rheumatics and other sufferers. The Central, Missisquoi, Vermont, Continental, and Excelsior Springs, in this vicinity, have a considerable repute for their healing waters, and the hotels are filled in summer. The saline and alkaline Highgate Springs, with their large old hotel, and the Champlain Spring, are near the beautiful Missisquoi Bay. Farther west, on a long peninsula between the bay and Lake Champlain, are the Alburgh Springs. In southern Vermont, seven miles from Rutland, is the ancient hotel at Clarendon Springs. The Newbury Sulphur Springs are on the edge of the idyllic Ox-Bow Meadows of the Connecticut River, and in sight of the majestic Franconia Mountains. Middletown Springs, with their hotels, lie in a picturesque Green-Mountain valley, 15 miles from Rutland. The six Brunswick Springs, near the Connecticut River, include iron, magnesia, white-sulphur, bromide and arsenic waters.

Farming.—The value of the farms of Vermont has not increased during the last 30 years, but the value of their products is greatly augmented. The valleys are rich in a deep black alluvial soil, and the strong loam of the uplands affords good crops and pasturage. The percentage of improved farm-land in Vermont is larger than in any other State except New York and Illinois. The rich arable plains of the Champlain Valley, sheltered from sea-winds, are adapted to fruit-farming and dairies; and Vermont has the most extensive dairy-interests of any State, in proportion to its population, the product reaching 35,000,000 pounds a year. The State Board of Trade was formed in 1888, in the interest of the makers of butter, cheese, and maple-sugar, and one of its functions is to expose the many dangerous counterfeits of these articles. The butter product has more than doubled since 1860, but the cheese product has lessened. Factory-made dairy-products are now in general favor, and are of great excellence. The yield of maple-sugar exceeds $1,250,000 a year, and the sap is evaporated with more scientific care than of old. It is exported in great quantities, mainly to the West, the business being largely directed by the Maple-Sugar Exchange at Brattleboro, with members in 38 towns. One third of the maple-sugar of America comes from Vermont,

WOODSTOCK: NORMAN WILLIAMS LIBRARY.

MANCHESTER: SEMINARY AVENUE.

whose great maple-orchards are tapped in early spring, pouring out their sap through spouts fixed in the trees, to be boiled down into syrup and crystallized.

The most valuable crop is hay, of which the yearly product exceeds 1,000,000 tons, valued at $11,000,000. The aggregate of the remaining crops is hardly half this amount, the chief of them being potatoes and oats, about $2,000,000 each.

There is less wool clipped here than in 1850, owing to strong outside competition. But the choice breeds of fine-wooled merino sheep of ancient pedigree raised in Vermont are celebrated all over the world, and have been exported to Australia, South America and other remote countries. Texan and Californian sheep-raisers continually visit this region to get thorough-bred rams to keep up the standard of their flocks. The horses of Vermont have also won great fame, and the Morgan, Messenger and Black-Hawk stocks are honored in equine history.

The Quarries are of great value and interest. Vermont leads all the States in the quantity, quality and variety of its marble, of which millions of cubic feet are exported every year. Three quarters of the marble quarried in the United States comes from Vermont; and Rutland, the centre of this industry, has sidewalks and curbstones, underpinnings and hitching-posts, and many public buildings of this beautiful material, which is both whiter and more durable than the famous Carrara marble. A small gravestone quarry was opened in 1785; the first work on Rutland marble began in 1844, at West Rutland; and now the little Otter-Creek Valley alone has 40 quarries, employing 4,500 men and $5,000,000 in capital. The Vermont Marble Company (of which the Hon. Redfield Proctor, recently U.-S. Secretary of War, was the founder) employs 1,400 men, and a capital of $3,000,000; and out of 370 gangs of saws now running in Vermont it has in operation 194. The principal marbles quarried in Vermont are from Rutland (both white and blue) and Sutherland Falls. The greatest part of the Rutland quarries are owned by this company, and they are also the owners of the Sutherland-Falls quarry, at Proctor, which is the biggest single quarry in existence. This company, which, by the way, is the largest concern in the world engaged in this business, requires 4,000 horse-power to operate its machinery, and runs in connection with its business

MONTPELIER: POST-OFFICE.

PROCTOR AND WEST RUTLAND: VERMONT MARBLE COMPANY.

a railroad of 20 miles, connecting its different works. The greater part of the marble quarried in Vermont is used for monumental purposes, it having for these uses very rapidly replaced the Italian stone. A large amount is also used in buildings. It is especially

adapted for this use in that it is the best fire resistant of all stones (the Sutherland-Falls withstanding a heat of 1,000°, while granite crumbles at 700°). It also possesses great strength, sustaining a crushing weight of over 17,000 pounds to the inch, while granite tests but 15,000, and brownstone about 3,000. The terrace and grand stairway of the Capitol, at Washington; the Parker House extension, at Boston; the spire of Grace Church, at New York; and thousands of structures in different parts of the country, attest at once the desirability and popularity of marble for building purposes and the extent of the business of this company.

Marble has been quarried in large quantities at Manchester, Dorset, New Haven, Roxbury, Brandon, Middlebury, Swanton, St. Albans, and Castleton. The verd-antique of Plymouth is equalled in beauty only by that of Tuscany. At Brandon there are mines of kaolin, from which fine grades of mineral paint are made. At Barre, six miles south of Montpelier, 35 firms are engaged in the quarrying of granite, employing 1,200 men, and shipping over 20,000 tons yearly. The stone is clear and even in texture, uniform in color, and susceptible of a high polish. Many granite-workers came hither from the Aberdeen quarries, in Scotland; and within ten years the population has risen from 500 to 7,000. There are also granite quarries at Dummerston and Ryegate. Fairhaven and Castleton are famous for slate, worked by large bodies of men, for billiard-beds, mantels, and slate-pencils. Valuable roofing-slate comes from Poultney and Northfield. The copperas of Pompanoosuc and the copper ore of Ely, Vershire and Corinth, have given rise to lucrative industries. Near Brandon there are deposits of brown lignite, burning readily. Vermont produces yearly over 500,000 barrels of lime, and 5,250,000,000 brick. Talc and manganese are mined here.

MIDDLEBURY COLLEGE: STARR HALL.

The Government includes a biennially elected governor, lieutenant-governor, treasurer, secretary of State, and auditor of accounts; a senate of 30 members; a house of 243 representatives (one from each organized town); and an elective judiciary. The State House at Montpelier was built in 1857–9, and has a Doric colonnade of white Barre granite, and is crowned by a handsome dome, above which rises a statue of Ceres. Here are kept the 24 State flags, 41 United-States flags, and two brigade flags, borne by Vermont soldiers in the Secession War. Here also rest the cannon captured by Vermonters from the Hessians, at Bennington, in 1777. The State Library of 26,000 volumes, the Supreme Court, and the Historical Society occupy an annex. The Vermont National Guard includes the First Regiment, the First Separate Battalion, and the famous Fuller Light Battery, of Brattleboro, armed with new steel rifled guns. The State Prison is at Windsor; the House of Correction, at Rutland; the Reform School, at Vergennes; the Asylum for the Insane, at Waterbury.

The Chief Towns are Burlington, beautifully situated over Lake Champlain, and favored by a large trade in lumber; Rutland, in the mountain-guarded Otter-Creek Valley; St. Albans, three miles from Lake Champlain, with a thronged butter-market, and large railroad shops; Bennington, occupied by manufactures; Brattleboro, amid charming hill-scenery on the Connecticut; Castleton, near Lake Bomoseen; St. Johnsbury, a famous manufacturing village; Montpelier, nestling in a beautiful valley, ten miles from the centre of Vermont, with handsome State and Federal buildings; and Bellows Falls, amid grand mountain-scenery at the white and impetuous falls of the Connecticut.

Education received earnest attention at the dawn of Vermont's history; and over $600,000 are now spent on the public schools yearly.

The University of Vermont was opened in 1800, and its buildings crown College Hill, at Burlington, with magnificent views of the Green Mountains on the east side, and Lake

Champlain and the Adirondack Mountains on the west. The University has 36 instructors and 470 students, including 180 in the Medical School. The State Agricultural College is connected with the University, and teaches chemistry, engineering and farming, and military science. The most beautiful of the University buildings is the Billings Library, of rock-faced and carved stone, designed by H. H. Richardson. It contains 42,000 volumes. Among the university's graduates were Jacob Collamer, Henry J. Raymond, Rev. Dr. W. G. T. Shedd, John A. Kasson, Frederick Billings, and H. O. Houghton, the publisher.

Middlebury College, founded in 1800, occupies a campus of 300 acres, on a pleasant hill-top, with views including the Otter-Creek and Champlain Valleys, and the Green Mountains. It is Congregational, and has nine professors and 50 students. Among its graduates were Hudson, the Shakespearean; Edward J. Phelps, late United-States Minister to Great Britain; Stephen Olin; and Silas Wright.

Norwich University, founded at Norwich in 1819, was the first military college in the Union. Gen. Sherman said that Norwich "almost rivalled the National Academy at West Point." After the buildings were burned, in 1866, the institution migrated to Northfield. Many distinguished army officers (including 275 in the Secession War) graduated at Norwich. The cadets for 30 free scholarships are appointed by the State senators. The uniform is dark blue, with United-States helmet. There are twelve instructors (including a detailed army officer) and 60 cadets.

The State supports three normal schools, at Castleton, Randolph and Johnson. The Vermont Episcopal Institute and Bishop Hopkins Hall are handsome stone structures on Rock Point. St.-Johnsbury Academy, founded in 1842, occupies handsome modern buildings, given by Thaddeus Fairbanks, in 1873. Many villages have public libraries, the most attractive of which is at Woodstock, enshrining its treasures in a round-arched building of red limestone and marble, with an open timber roof, and valuable paintings. The Fletcher Free Library, at Burlington, has 18,000 volumes; and the St.-Johnsbury Athenæum, founded by ex-Gov. Horace Fairbanks, contains 12,000 volumes, and an art-gallery, whose chief work is Bierstadt's *Domes of the Yosemite.*

The Railroads followed the lines of the old Indian trails. The line from Burlington to Windsor dates from 1849; Rutland to Burlington, and Essex Junction to Rouse's Point, 1850; and White-River Junction to St. Johnsbury, 1851.

The Manufactures of Vermont include farming and dairy implements, parlor-organs, scales, wagons, paper, and machinery.

In the beautiful valley through which the Lamoille River winds down to Lake Champlain, nestles Hyde Park, the county seat of Lamoille County, with its country village-street, on which front the white court-house, town hall, academy, hotel, and half a dozen stores. From a business point of view Hyde Park derives importance from Carroll S. Page's green calf-skin business, the largest industry of its kind in the United States. In Mr. Page's busy hide-house hundreds of thousands of skins are handled yearly, ships ments being made to him from all parts of the country, while he in turn sells the prepared products to American and foreign tanners. The wonderful development to which the business has been brought is largely due to unique methods of grading, so that a tanner desiring skins for any specialty can here obtain exactly the raw skin required.

HYDE PARK: GOV. CARROLL S. PAGE'S ESTATE.

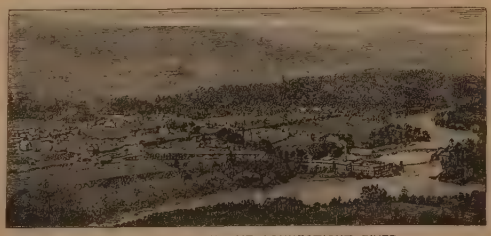
The trade has thus come to be largely in specialties for fine work, such as pocket-books, drum and banjo heads, roller skins, and fine shoes. The development of this vast business, so far from the trade-centres, has been productive of great good to the town, and is the subject of continual wonder on the part of visitors. Mr. Page is now Governor of Vermont.

In a pleasant glen, near Burlington, nestles the large village of Winooski, the seat of the Burlington Woolen Company, whose three mills, four brick storehouses, naphtha and carbonizing buildings, flour and grist mills, brick block for halls and stores, and tenement houses, make up a considerable part of the place. This industry was founded in 1827, and the present corporation dates from 1861. The company employs 1,000 persons, making uniform cloths and broadcloths, doeskins and kerseys, overcoatings and Meltons, carriage-cloths and cloakings, beavers and cassimeres. The experience of three generations of skilled operatives has brought to the Burlington Woolen Company an unexcelled reputation for its product of fine and costly grades of cloth, which are sold all over the United States, their character and fineness reaching the highest brands of foreign woolens. The Colchester Mills, under the same management, and controlled by the same owners, employ several hundred hands in making the finest grades of cotton yarn, carded and combed, white and in colors. The Burlington Woolen Company and the Colchester Mills afford employment to a majority of the residents of Winooski.

WINOOSKI: BURLINGTON WOOLEN MILLS.

At Olcott, a picturesque point on the Connecticut River, two miles above White-River Junction, is the extensive water-power developed since 1885 by the Olcott-Falls Company. In 1848 a charter was granted to The White-River Falls Corporation, for "maintaining a dam and water-power," and among the corporators was Rufus Choate. To this corporation succeeded the present company, whose plant comprises a dam 600 feet long, giving a head of 40 feet and 10,000 horse-power; and the paper and pulp mills, a compact group of brick and stone buildings covering two acres. The machinery includes four paper-machines of a width of 84 inches, 88 inches, 100 inches and 104 inches respectively; and 19 18-inch and 54-inch pulp-grinders, requiring each 250 horse-power, and yielding a daily product of 80 tons of printing paper and dry pulp. The pulp wood is cut from wood-tracts of 1,500 acres in northern Vermont, owned by the company. Having their own timber-lands, an abundant water-power, and the latest improved machinery, the facilities of the Olcott-Falls Company for furnishing a superior grade of newspaper for the large city daily press are unsurpassed. The products of these mills are sold through Wilder & Co., of Boston, C. T. and H. A. Wilder, being respectively President and Treasurer of this company.

OLCOTT: OLCOTT PAPER MILLS.



OLCOTT MILLS, ON THE CONNECTICUT RIVER.

Nearly all trade, the mainspring of modern life, is based upon weight; and up to within a lifetime this was an affair of the ancient even balance, or Roman steelyard, or similarly inexact contrivances. In 1823 Thaddeus Fairbanks started a foundry at St. Johnsbury.

ST. JOHNSBURY: THE E. & T. FAIRBANKS & CO.

Vermont; and in 1824, with his brother Erastus, began to manufacture stoves and plows, afterwards adding hemp-dressing machines, and entering also the hemp business. The purchase of hemp involved much weighing; and Mr. Fairbanks after long study devised the platform scale, a series of levers delicately adjusted on knife-edge steel bearings, and still the accepted principle of all practical weighing machines. This was patented in 1831, and out of its manufacture has grown the largest scale-factory in the world, incorporated in 1874, and with a paid-in capital of $2,500,000. The scales and their processes of manufacture are covered by a great number of patents. There are 500 varieties made here, ranging from the most delicate balances up to the huge railway scales, weighing 150 tons at once. Large shipments are made to Brazil and Chili, Germany and Austria, Australia and the far East; and the United States is supplied from E. & T. Fairbanks & Co.'s warehouses in a score of cities. For many years this company has furnished the Government with scales, from the delicate ones in the post-offices up to those used in the navy-yards. The Fairbanks scales are the standard of Europe and Africa, India and Australia, China and Japan, the East and West Indies, and South America. The Fairbanks' works are at St. Johnsbury, and cover twelve acres, with more than a score of substantial buildings, occupied by 700 skilled workmen, making every year from 10,000 tons of material over 100,000 scales, valued at $3,000,000. The Fairbanks have enriched St. Johnsbury with a noble church and academy, a library, art-gallery, and museum of natural history. Two of them have been Governors of Vermont.

BURLINGTON: Y. M. C. A.

BURLINGTON: EPISCOPAL INSTITUTE.

The beautiful village of Brattleboro, on the Connecticut River, is world-renowned as the home of the Estey Organ Company. The business of making melodeons began here in 1846, and three or four years later passed into the hands of Jacob Estey, who used to drive about New England, "York State," and Canada, selling the products of the works. The Estey Organ Company now owns 14 great factories, with a capacity of 1,800 organs a month. The company has a paid-in capital of $1,000,000; and the stock is all owned in the Estey family. Col. Julius J. Estey, the treasurer, is the son of the founder; and Lieut.-Gov. Levi K. Fuller, the vice-president, is his son-in-law. The products of the Estey works include all grades of instruments, from the portable organ, which may be folded up and carried under the arm, up to the three manual organs, with pedals, pipe-top, and other accessories, giving a compass of great volume and richness of tone. Of the parlor, boudoir, salôn, church, philharmonic and other organs, with or without pipe-tops, each has its own special adaptation and merits, and all are characterized by rich tone-effects, and unusual power and expression. Some are adapted for halls, and others for churches, lodges and societies, wherever grand and noble harmonies and accompaniments are desired.

BRATTLEBORO: ESTEY ORGAN COMPANY.

HISTORY.

The great section of America between 34° and 45° (from Cape Fear to Halifax) originally bore the name of *Virginia*. In 1606 King James I. divided this empire into three districts—that from 34° to 38° being granted to the London Company, that from 38° to 41° remaining as neutral ground, and that from 41° to 45° passing under the control of the Plymouth Company. The London Company sent out in 1607 105 colonists, under Newport, Gosnold, and John Smith, and they settled at Jamestown, on the James River, where a ruined church-tower alone perpetuates the memory of the city. In 1609 the London Company was granted the territory for 200 miles north and 200 miles south of Old Point Comfort, and westward to the Pacific; and sent over 500 emigrants, of whom but 60 remained a year later, when Lord De la Warre arrived to govern and reinforce the colony. New settlements sprang up, at Hampton, Dutch Gap, Bermuda Hundred and other points in the interior. The aboriginal tribes were the Powhatans, in Tidewater; the Mannahacks and Monacans, in the Midlands and Piedmont; and the Cherokees and Algonquins of the Valley and mountains. In 1619 a Dutch vessel brought the first negro slaves to Virginia; the first elective body in America was convened from the eleven plantations, at Jamestown; and 1,200 immigrants arrived, including 100 felons sent from English prisons for planters' servants, and 90 respectable girls, for planters' wives. In 1622 Opecancanough and his Indian warriors slew 347 English settlers in a single night, and during the grievous war which ensued the white population fell away from 4,000 to 2,500. In 1634 the London Company was arbitrarily dissolved by a writ of *quo warranto*, and Virginia became a Crown Colony, and remained such for nearly 150 years, the King appointing the governor and council, and the people electing the House of Burgesses. The

STATISTICS.

Settled at	Jamestown.
Settled in	1607
Founded by	Englishmen.
One of the Original 13 States.	
Population in 1860,	1,596,318
In 1870,	1,225,163
In 1880,	1,512,565
White,	880,858
Colored,	631,707
American-born,	1,497,869
Foreign-born,	14,696
Males,	745,589
Females,	766,976
In 1890 (U. S. census),	1,655,980
White,	1,014,680
Colored,	640,867
Population to the square mile,	37.7
Voting Population,	334,505
Vote for Harrison (1888),	150,438
Vote for Cleveland (1888),	151,977
Net State Debt,	$31,525,535
Assessed Valuation of Property (1890),	$362,000,000
Area (square miles),	42,450
U.-S. Representatives,	10
Militia (Disciplined),	2,809
Counties,	100
Post-offices,	2,804
Railroads (miles),	3,160
Vessels,	1,307
Tonnage,	41,190
Manufactures (yearly),	$51,810,692
Operatives,	40,184
Yearly Wages,	$7,425,261
Farm Land (in acres),	19,910,700
Farm-Land Values,	$216,028,107
Farm Products (yearly),	$45,726,221
Public Schools, Average Daily Attendance,	195,525
Newspapers,	262
Latitude,	36°31′ to 39°27′ N.
Longitude,	75°13′ to 83°37′ W.
Temperature,	—5° to 103°
Mean Temperature (Richmond),	57°

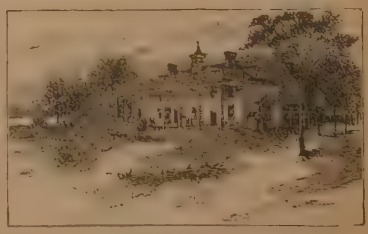
TEN CHIEF CITIES AND THEIR POPULATIONS. (Census of 1890.)

Richmond,	81,388
Norfolk,	34,871
Petersburg,	22,680
Lynchburg,	19,709
Roanoke,	16,159
Alexandria,	14,339
Portsmouth,	13,268
Dansville,	10,305
Manchester,	9,246
Staunton,	6,975

JAMESTOWN: RUINS OF CHURCH.

colony remained steadfast to the Stuarts until a fleet arrived bearing Parliament's commissioners. The first constitution dated from 1621, and the laws were codified in 1632 and 1661. The intolerance of the Established Church of England, the rapacity of Lords Culpeper and Arlington, and heavy taxes resulted in Bacon's rebellion. The advance of French military posts along the Alleghanies led to war, in 1754, and George Washington led the Virginian troops in an attempt to recover the colony's outposts on the upper Ohio.

Although her commerce with Britain exceeded that of any other colony, Virginia took a leading part in inaugurating the Revolution, and the Declaration of Independence was proposed in Congress by her deputies. Lord Dunmore, her governor, devastated the coast with fire and sword, and was followed in 1779 by Sir George Collier, who destroyed Norfolk and Portsmouth and 130 vessels; and Benedict Arnold, ascending to and burning Richmond in 1781. Late in 1781 Lord Cornwallis and 7,000 British and German troops fortified Yorktown, where he was besieged by an American and French army of 16,000 men, under Washington and Rochambeau. After much hard fighting and a series of terrific bombardments, Cornwallis was compelled to surrender his army, with 235 cannon and 28 standards. The noble monument on the Yorktown field was designed by J. Q. A. Ward, sculptor, and R. M. Hunt and Henry Van Brunt, architects, and dedicated in 1885.



MOUNT VERNON: THE HOME OF GEORGE WASHINGTON.

After the Revolution Virginia ceded to the United States, Kentucky and the vast domains northwest of the Ohio. In 1790 this Commonwealth was by far the most populous in the Union, having more inhabitants than New York and Massachusetts united, or Pennsylvania and New Jersey. This supremacy she held until 1820, when New York passed her. Ten years later, Pennsylvania also moved ahead of her. In 1840 Ohio, and in 1860 Illinois, showed populations exceeding Virginia's, and in 1870 the Old Dominion stood tenth in the list of States. In 1890, she is fifteenth.

Early in 1861 the people of Virginia refused, by a majority of 60,000, to secede from the Union; but a few weeks later, when the Commonwealth was full of troops from the Gulf States, and blood had been sprinkled in the faces of the people, she was "dragooned out of the Union" (as Farragut said).

Fitzhugh Lee says: "Virginia in 1861 was a Union State, and she pleaded for the preservation of the Union. Her convention which assembled to take into consideration the subject had a large majority of Union men in it. It was only when Mr. Lincoln called for troops that this majority was changed, and Virginia decided by an almost unanimous vote that if war was to be made upon the Southern States she would cast her lot with them, though she knew that her soil would be the battle-field. It was but natural that a State which had so much to do with the formation of the American Union should have formed a deep attachment for the unity of the Republic, and when she finally decided to withdraw from the Union it was in the exercise of a right reserved by her when she ratified the Federal Constitution."

MOUNT VERNON; THE TOMB OF WASHINGTON.

NORFOLK: ST.-PAUL'S CHURCH.

The Norfolk Navy-Yard and Harper's-Ferry Arsenal were destroyed by the National officials; and Fort Monroe remained in the hands of its garrison. During the long and terrible war that ensued, Virginia suffered more than any other State, losing many thousands of her bravest men, and $300,000,000 worth of property, besides having a vast area dismembered from her, and formed into a new State. In May, 1861, the Federal troops occupied Alexandria, and in June Ohio troops moved into Western Virginia. Pennsylvanians took Harper's Ferry; but Butler's advance from Fort Monroe suffered defeat by the Confederates at Big Bethel. July 21st, McDowell's 28,000 Federals, marching from Washington toward Richmond, were defeated by Beauregard's Confederates, at Bull Run, and thrown back in rout to the National capital. In October, Stone's Federal army, crossing the Potomac near Leesburg, was shattered at Ball's Bluff, and driven into the river. In March, 1862, the Confederate iron-clad *Virginia* (the old *Merrimac*) scattered the United-States fleet near Fort Monroe, sinking the frigates *Cumberland* and *Congress*, and was then checked by the iron-clad turret-ship *Monitor*. A few weeks later, the Federal troops occupied Norfolk; and McClellan's enormous army moved up the Peninsula, taking Yorktown and Williamsburg, and reaching within a few miles of Richmond. Here his 125,000 men were checked by Johnston's 90,000 Confederates, in the battle of Fair Oaks, where 10,000 men were killed or wounded. Nearly a month later, when the Union pickets were within four miles of Richmond, Lee fell upon McClellan and drove him off, in the terrible Seven Days' Battles in which 34,000 men fell, in the two armies. During this time Stonewall Jackson had been out-manœuvring and out-fighting Banks, Fremont and Shields in the Valley of Virginia. On his departure for Richmond, the Federal forces in the north were formed into Pope's Army of Virginia, whose advancing columns were checked at Cedar Mountain (August 9th), and driven back, bravely fighting, to Washington. Part of McClellan's army, brought around by sea from the Peninsula, reenforced the retreating forces, and the second battle of Bull Run resulted in a gloomy defeat for the National army, which lost 15,000 men in the campaign. When Lee lay near Culpeper, after Antietam, the Federal army endeavored to flank him by Acquia Creek; and Burnside lost 12,000 men in heroic assaults on the heights back of Fredericksburg (December 13, 1862). May 2-4, 1863, the Federal army (under Hooker) moved around Fredericksburg, and got on Lee's lines of communication, only to suffer another appalling defeat, at Chancellorsville, losing 17,000 men to the confederates 13,000. After Gettysburg, Meade followed Lee to the Rapidan, sparring for a hold. Then Grant took command, and advanced from Culpeper with 125,000 men and 350 guns, and drove and outflanked Lee's army through the Wilderness and down to the James River, but lost 60,000 men within five weeks. While Grant was crushing his way through the Wilderness, Sigel advanced up the Valley, until Breckinridge defeated him at Newmarket: and Crook moved up the Kanawha, from Charleston, W. Va., until Early drove him back. Hunter combined

RICHMOND: ST.-JOHN'S CHURCH.

ALEXANDRIA
CHURCH WHERE WASHINGTON WORSHIPPED.

these two armies (in June, 1864) and attacked Lynchburg. The long siege of Petersburg followed, from June to April, with almost continuous fighting. In August, 1864, Sheridan annihilated Early's army, in the Valley, in a series of brilliant battles. At last Lee was compelled to abandon Petersburg and Richmond, and retreat towards the Alleghany Mountains, hotly pursued by Sheridan's horse and the infantry corps of the Army of the Potomac. At Appomatox the National armies closed around him, and the remnant of the heroic Southern army, numbering 28,000 men, surrendered to Gen. Grant. Thus ended the mighty struggle, to which the United States sent 2,800,000 men, and the South sent nearly 1,500,000 men.

MONTICELLO: THE HOME OF THOMAS JEFFERSON.

After the war, until 1870, Virginia comprised the First Military District, under Schofield, Stoneman and Canby, successively; Gov. Pierpoint, the executive of the Virginia Union men (at Wheeling, 1861-3, and at Alexandria, 1863-5), moving to Richmond, where he was succeeded in 1868 by Henry H. Wells, the military appointee. A new constitution, abolishing slavery, was ratified by the popular vote in 1869; and in 1870 military control ceased, and Virginia's representatives entered Congress. Gen. Gordon's phrase: "Our civilization that began with Washington and ended with Lee" describes the passing away of the old systems. Land companies are now laying out the ancient baronial estates; iron-kings replace the landed gentry; and the pride of Virginia is in her smiling fields and vineyards, commerce and manufactures, and strong industrial development. In dreamy old Alexandria historic colonial houses rise amid high-walled rose-gardens, along the unchanged Tory streets named King, Queen; Royal, Prince, Princess, Duke, Duchess and St. Asaph, with their paving of huge stones. Here is Christ Church, built of imported English brick, in 1773, and religiously preserving Washington's pew. In sight, up the broad Potomac, rise the vast marble palaces of the American capital; and along the heights toward Annandale and Fairfax are the fading ruins of the forts erected in 1861-3. A few miles up the river, overlooking Washington, stands the Arlington mansion, built by G. W. P. Custis, and for many years the home of his son-in-law, Robert E. Lee; and now surrounded by the graves of thousands of Union soldiers. A few miles down the stream, overlooking the noble Potomac for many a silvery league, rises Mount Vernon, the home of George Washington from 1752 until his death in 1799, with its many memorials of the great founder of the Republic, its quaint old-time gardens and high-colonnaded verandas. The estate was bought in 1856 by the Ladies' Mount-Vernon Association, composed of women from 30 States, and is kept open to the people, thousands of whom come hither every month to see Washington's home and grave. In Fairfax Court-House, still standing in a war-worn village twelve miles west of Alexandria, Washington received his first military commission. Within a few miles are the battlefields of Bull Run, Chantilly, Drainesville and other hard-fought engagements of the late civil war. Away down on the Northern Neck, beyond the Occoquan Forest, the level lowlands of Westmoreland County stretch from the Potomac to the Rappahannock, and contain the birthplaces of Washington, Monroe, and Light-Horse Harry Lee. Point Comfort was so named in 1608, by Capt. John Smith,

WHITE HOUSE: ST.-PETER'S CHURCH.

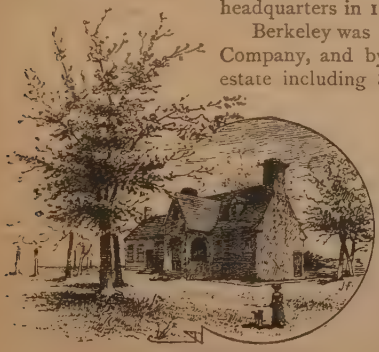
HAMPTON: ST.-JOHN'S CHURCH.

because his storm-tossed boats found safe shelter here; and later, when another Point Comfort was found, under similar circumstances of peril, the first-named locality became *Old* Point Comfort.

FAIRFAX COURT-HOUSE.

St. John's Episcopal Church at Hampton dates from 1658, and is of red and gray glazed English brick, with a memorial window representing the baptism of Pocahontas. St. Luke's, in Isle-of-Wight county, built in 1632, lifts its Norman tower over a grove of oaks, and enjoys the honor of being the most ancient Protestant church in America.

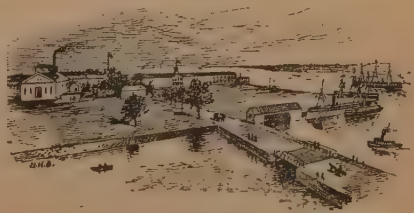
Williamsburg, on the Peninsula, the ancient capital of Virginia, and the scene of Hooker's and Kearny's desperate battle during the civil war, contains the quaint old magazine built by Gov. Spotswood in 1714; a battered statue of Lord Botetourt, dating from 1770; the venerable Christ Church, built in 1678; and other memorials of antiquity. Seven miles distant is the ivy-clad church-tower (built before 1620) of Jamestown, the first settlement in Virginia, rising above a lonely desolation. The Randolph mansion on Malvern Hill was built in 1730, of imported brick, by Wm. Randolph, Treasurer of Virginia, and overlooks a vast expanse of the James valley. It was Lafayette's headquarters in 1781, and McClellan's in 1862.



MALVERN HILL: THE MALVERN HOUSE.

Berkeley was granted by the Crown to the Merchants' Trading Company, and by them sold to Benjamin Harrison, in 1645, the estate including 8,000 acres, and reaching from the James to the Chickahominy. The present mansion dates from 1723, and was a favorite haunt of Patrick Henry, the birthplace of the first President Harrison, and the headquarters of Gen. McClellan. Powhatan was the most powerful chief of the Virginia Indians, and his daughter, Pocahontas, married John Rolfe, an English colonist. Many Virginian patricians claim descent from this native princess. President Benjamin Harrison is her great-great-great-great-great-great-great-great grandson.

The Name of Virginia was given by Queen Elizabeth, in 1584, after Capts. Amadas and Barlow (of Ralegh's fleet) had informed her of the beauties of the newly discovered country. It was a memorial of her own unmarried condition. Spenser dedicated the *Faerie Queene* to "Elizabeth, by the Grace of God, Queene of England, France and Ireland, and of Virginia." The title, OLD DOMINION, refers to the loyalty of Virginia to the Stuart dynasty, in holding allegiance thereto, even after Charles I. was beheaded, and in proclaiming Charles II. "King of England, Scotland, Ireland and Virginia" before he had been allowed to return to his throne. The colonial tradition avers that at his coronation he wore a robe made of Virginian silk. The State is also called THE MOTHER OF PRESIDENTS, because four out of the first five presidents of the Republic (Washington, Jefferson, Madison and Monroe) were natives of her soil. Each of these served for two terms. The first Harrison, Tyler and Taylor were also born in Virginia.



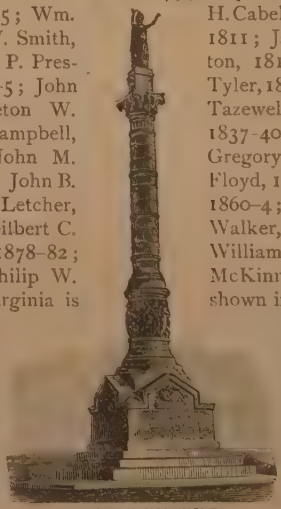
PORTSMOUTH (GOSPORT): NAVY YARD.

The Arms of Virginia were devised in 1776, and show Virtus, the genius of the Com-

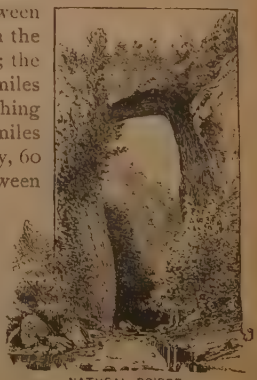
ARLINGTON: MONUMENT TO UNKNOWN DEAD.

monwealth, dressed like an Amazon, resting on a spear with one hand, and holding a sword in the other, and treading on Tyranny, represented by a man prostrate, a crown fallen from his head, a broken chain in his left hand, and a scourge in his right. The motto is SIC SEMPER TYRANNIS: "Thus be it ever to Tyrants."

The Governors of Virginia, from 1606 to 1776, included 52 nobles, knights and gentlemen of Great Britain and the Province. They were followed by Patrick Henry, 1776–9; Thomas Jefferson, 1779–81; Thomas Nelson, 1781–2; Benj. Harrison, 1782–4; Patrick Henry, 1784–6; and Edmund Randolph, 1786–88. The State Governors have been: Beverley Randolph, 1788–91; Henry Lee, 1791–4; Robert Brook, 1794–6; James Wood, 1796–9; Jas. Monroe, 1799–1802; John Page, 1802–5; Wm. H. Cabell, 1805–8; John Tyler, 1808–11; James Monroe, 1811; Geo. W. Smith, 1811; Jas. Barbour, 1812–14; Wilson C. Nicholas, 1814–16; James P. Preston, 1816–19; Thos. M. Randolph, 1819–22; Jas. Pleasants, 1822–5; John Tyler, 1825–7; Wm. B. Giles, 1827–30; John Floyd, 1830–4; Littleton W. Tazewell, 1834–6; Wyndham Robertson (acting), 1836–7; David Campbell, 1837–40; Thos. W. Gilmer, 1840–1; John Rutherford, 1841–2; John M. Gregory, 1842–3; James McDowell, 1843–6; Wm. Smith, 1846–9; John B. Floyd, 1849–52; Jos. Johnson, 1852–6; Henry A. Wise, 1856–60; John Letcher, 1860–4; Francis H. Pierpont, 1864–8; Henry H. Wells, 1868–71; Gilbert C. Walker, 1871–4; Jas. L. Kemper, 1874–8; F. W. M. Holliday, 1878–82; William E. Cameron, 1882–6; Fitzhugh Lee, 1886–90; and Philip W. McKinney, 1890–3.


YORKTOWN MONUMENT.

The Topography of Virginia is shown in six great divisions, ascending toward the west, and showing a marked difference in climate and productions. They are known as the Tidewater, Middle, Piedmont, Blue-Ridge, Valley and Appalachian sections. Tidewater Virginia covers 11,350 square miles, with 1,500 miles of tidal shores on the Atlantic and Chesapeake Bays and their affluents, having a frontage of 114 miles, and a depth inland of 90 miles. It includes hundreds of minor peninsulas and necks, and nine great ones: The Eastern Shore, two counties eastward of Chesapeake Bay, with broad, still sounds and sandy islands and sand-bars facing the Atlantic; Norfolk Neck, including the rich lowlands and swamp-lands between the Atlantic and the Nansemond River; the Southside, between the Nansemond and James, 65 miles long and from 35 to 40 miles wide; the Chickahominy, between the James and the Chickahominy, 50 miles long by from five to 15 miles wide; the Peninsula, next north, reaching to the York and Pamunkey, 100 miles long and from five to 15 miles wide; the King William, between the Pamunkey and Mattapony, 60 miles long, by from three to 14 miles wide; the Gloucester, between the Mattapony and Pianketank, 70 miles long, by from six to 18 miles wide; the Middlesex, 60 miles long, by from three to ten miles wide; and the famous Northern Neck, 75 miles long and from six to 20 miles wide, between the Rappahannock and Potomac Rivers. The lands were once far more rich and productive than now. On these peninsulas (and especially the Northern Neck) arose the stately feudal civilization of ancient Virginia, with its now-ruined parish-churches, and the mansions and estates of


NATURAL BRIDGE.

ARLINGTON: NATIONAL CEMETERY.

the Washingtons, Lees, Carters, Fairfaxes, Beverleys, Berkeleys and other noble families.

Middle Virginia rises above the Tidewater counties, forming a pleasant undulating plain, of 12,470 square miles, ascending on the west to the Bull-Run, Catoctin, Yew, Buffalo and other mountains, bold foot-hills of the Blue Ridge, running from the Potomac, near Great Falls, southwest to the Dan, west of Danville. Piedmont Virginia forms a belt of 6,680 square miles of picturesque and well-watered valleys and plains, running southwest from the Potomac to North Carolina, 244 miles, and 25 miles wide. It has a heavy red soil, famous for apples, grapes and grain; and its elevated coves and valleys form sanitariums of pure dry air. From the high western edge of the Piedmont country the Blue Ridge rises, running clear across the State for 310 miles, and with its great plateaus, parallel ridges and spurs covering 2,500 square miles, at an average height of 2,500 feet. The Ridge where the Potomac breaks through it, at Harper's Ferry, is 1,460 feet high, and rises to 3,369 feet at Mount Marshall, near Front Royal and Manassas Gap. The Chesapeake & Ohio Railroad crosses at Rockfish Gap, 1,986 feet above the tide; and the water-gap made by the James River is 706 feet high. Amid the beautiful and sequestered valleys in this region, stand many fine old estates, like Montpelier, the home of James Madison, and Castle Hill, where the Rives family has long dwelt. Montticello is an imposing country-house, near the tomb of its illustrious founder, which bears the inscription: "Here lies Thomas Jefferson, author of the Declaration of Independence, of the statute of Virginia for Religious Freedom, and the founder of the University of Virginia."

ARLINGTON: OLD CUSTIS (LEE) MANSION.

The Valley of Virginia, between the Blue Ridge and the Alleghanies, is 305 miles long, and covers 7,550 square miles of rolling plateaus, rising from east to west, broken by bold detached mountain-ranges and peaks, and containing the valleys of the Shenandoah, James, Roanoke, Holston (Tennessee), and Kanawha (or New) Rivers. The fifteen valley counties have singular beauty of scenery, their deep forests, rich farms and pleasant villages being overlooked by the majestic Blue Ridge on one side, and the long uniform lines of the Kittatinny on the other, with the lone knobs of more distant ranges, and the fortress-like ridges rising from the plains. The famous Shenandoah Valley occupies the seven counties in the northern part of the Valley of Virginia. The Caverns of Luray, re-discovered in 1878, near one of the battle-scarred old villages of the Valley, are now visited yearly by thousands of travellers, resting at the pretty Luray Inn. The unrivalled stalactites and stalagmites in "this dark studio of nature," reproduce with interesting likeness fountains and geysers, craters and cascades, gates and towers, and a thousand familiar objects. Halls and avenues extend far away into the blue silurian limestone strata, weirdly illuminated at times by magnesium and electric lights, and apparently upheld by hundreds of stalagmitic columns. Weyer's Cave and Madison's Cave are in a spur of the Blue Ridge, in the Valley of Virginia. Weyer's ranks next to the Mammoth and Wyandotte Caves and has many halls and apartments, adorned by the most brilliant stalactites and stalagmites. The Blowing Cave, farther

SMITHFIELD CHURCH.

RICHMOND: WASHINGTON MONUMENT.

south in the valley, pours out a perpetual rush of cold air during the summer. The Crabtree Falls descend from Pinnacle Peak in a dazzling sheet of white, falling 3,000 feet in a horizontal distance of 2,000 feet. The Natural Bridge is a mighty monolithic arch west of the Blue Ridge and 14 miles from Lexington, in a region of cascades and caverns, and deep pine-woods, 1,500 feet above the sea. It is 215½ feet high, and 100 feet wide, and with a span of 80 feet.

Appalachian Virginia, or the Mountain Region, covers 4,500 square miles, in a belt 260 miles long and from ten to 50 miles wide, a network of parallel ranges, enclosing long and narrow valleys which run northeast and southwest. Here and there occur charming glens, like Burke's Garden, near the head of Holston, an area of 30,000 acres of blue-grass land, surrounded by high and mural mountain escarpments.

Tidewater has 415,000 inhabitants, and Middle Virginia has 443,000, more than half of them colored. Piedmont has 252,000 (104,000 colored), the Blue Ridge 40,000 (2,600 colored), the Valley, 251,000 (51,000 colored), and Appalachia, 105,000 (9,000 colored).

The Eastern Shore of Virginia includes the counties of Northampton and Accomack, a long and low-lying peninsula between the ocean and Chesapeake Bay. It is bordered on the Atlantic side by the lagoon called the Broadwater, outside of which a line of low sandy islands faces the ocean-surges. Chincoteague is the headquarters of many sportsmen, who find a great variety of game-birds and fish among the inlets and along the desolate islands. Hampton Roads is the deep estuary of the James River, where the navies of the world might ride in safety. Into this bay opens the broad Elizabeth River, with the deep Norfolk Harbor 12 miles up, and the Norfolk and North-Carolina Canals running south to Pamlico and Albemarle Sounds. Norfolk ships $5,000,000 worth of vegetables every year, half of which comes from the rich truck-farms in the country.

RICHMOND: LEE MONUMENT.

The James River rises in the Alleghanies; cuts through the Blue Ridge near Lynchburg; and receives scores of tributary streams, some of them navigable, like the Appomatox (to Petersburg), Nansemond and Chickahominy. Vessels drawing 14 feet can ascend 150 miles, to Richmond. The York River may be ascended by large ships 40 miles, to its head at West Point, whence the confluent Mattapony and Pamunkey Rivers are navigable for about 30 miles each.

NATURAL TUNNEL.

Large vessels can ascend the Rappahannock estuary to Tappahannock, its port of entry; and steamboats and coasters go up to Fredericksburg, 92 miles from the bay. Among the mountains of the southwest rise the two streams whose confluence forms the Tennessee River. The Yadkin and Roanoke, rising in the Blue Ridge, and the Meherrin, Blackwater and Nottoway, in southeastern Virginia, all flow across the border into North Carolina, the last three entering the Chowan River.

The Dismal Swamp is a great sponge-like reservoir, from whose cypress and juniper woods fine rivers issue. The air is free from miasma; and the water is tinted by the junipers to a pale wine color, but is sweet and pure. The swamp lies southwest of Norfolk, and covers 150,000 acres.

The most extensive and valuable oyster-beds in the world are found around Chesapeake Bay. Virginia has 14,000 oystermen (more than half of them colored), with 1,300 large boats and 4,500 canoes, taking 7,000,000 bushels yearly. One fourth of this product is packed in cans. The tidal waters are rich in shad, sturgeon, herring, rockfish, perch, chubs, spotfish, bass, and other fish, of which over $1,000,000 worth are caught yearly. Terrapin, lobsters and crabs also abound in these waters; and canvas-back duck teem in the lagoons.

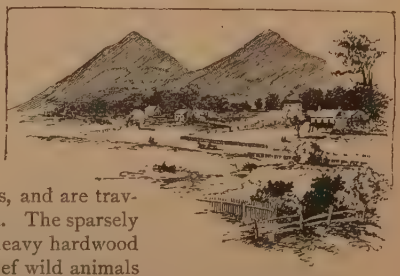
RICHMOND: CITY HALL.

The Climate of the peninsulas between the James and the Potomac is mild in winter and miasmatic in summer. Malaria also lurks about the great swamps in the south and southeast, although the vicinity of Hampton Roads is healthful. The mountains shield the Valley of Virginia from the cold blasts of winter, while they also lift it up to an altitude which ensures coolness in summer.

Agriculture is favored by short winters, long growing seasons, and abundant rains. The Valley of Virginia, with its rich limestone soil, is one of the finest farming regions in the Atlantic States, yielding great crops of cereals. The Tidewater counties produce great quantities of early fruits and vegetables, which are sent to the Northern cities. The wild Scuppernong grapes of the seaboard are made into wine; and Piedmont (and especially Albemarle) has extensive vineyards, orchards, and peach-groves. Peanuts grow abundantly on the light and sandy soils of the southeast, the product exceeding $2,500,000 a year. This industry has risen since the civil war, and since 1880 the consumption in the United States has increased from 2,000,000 to 5,000,000 bushels. The chief markets are Norfolk and Petersburg. The nuts are polished and freed from earth in large iron cylinders, the discolored ones being used in confectionery. There are three varieties, white, red and Spanish, and they average 40 bushels to the acre. A fine table oil is extracted from them; and locally they are used for flour, in making biscuit.

The Virginia-leaf tobacco is famous the world over for its excellence. The best grades grow in the Middle and Piedmont districts, and the mountain and valley belts produce immense crops of coarse and heavy tobaccos. Blue grass abounds in the centre and west, making dairying and stock-raising important industries. The State has 251,000 horses, valued at $12,000,000; 590,000 cattle, at $7,000,000; 340,000 sheep and 417,000 hogs.

Great areas of Virginian land are covered with valuable and productive forests, the yellow Virginia pine and the black and red oaks of the lowlands and middle region, the oaks and hickories of the Piedmont and Blue Ridge, the hard woods of the Valley, and the walnuts and tulips, buttonwoods and pines of the Alleghanies. The forests of the Dismal Swamp produce enormous quantities of pine and cypress, and are traversed by two narrow-gauge railways from Suffolk. The sparsely settled southwestern counties are covered with heavy hardwood forests and great areas of white pine. The chief wild animals are black bears and deer, wild-cats and wolves, opossums and ground-hogs, otter and beaver, foxes and muskrats, rabbits and squirrels. Thousands of tons of sumac leaves are sent from Virginia every year, successfully competing with the sumac of Sicily for the use of tanners and morocco-dealers. Sassafras oil is another valuable article of commerce.



PEAKS OF OTTER.

Minerals. — Iron ores are found in remarkably rich deposits among the mountains, in unbroken beds from 20 to 100 feet thick and many miles long. The western foot-hills of the Blue Ridge for 300 miles are lined with brown hematite ore, and solid masses appear along the Alleghanies. The production of pig-iron in Virginia has risen from 30,000 tons in 1880 to nearly 160,000 tons, besides 40,000 tons of rolled iron. Iron can be made here at from $11 to $13 a ton, at the local blast-furnaces.

CLIFTON FORGE: WATER GAP, JAMES RIVER.

The Flat-top coal-field, developed at Pocahontas in 1883, has sent out nearly 1,400,000 tons in a single year, equally good for steam purposes and for coking.

Over $2,000,000 worth of Virginian gold has been sent to the mint. Many mines have been opened along the great gold-belt, 200 miles long, from the Potomac to the Dan. Sulphuret of copper (white pyrites) has been mined and reduced at the Arminius mines, in Louisa County.

The largest lead-mines in the South are in Wythe County. The chief manganese mines in the world occur at Crimora, near the Blue Ridge, and Waynesborough, which produce 20,000 tons yearly. The Holston-River gypsum-fields, around Saltville, send out yearly thousands of tons of plaster, of great value in fertilizing land. The southwest produces large quantities of salt, from the brine rising in artesian wells. Nearly the whole Confederacy east of the Mississippi was supplied thence, during the Secession War. This region is also famous for beds of gypsum. Zinc and lead ores are mined on New River. The fine gray granite of Richmond and Petersburg, brownstone of Manassas, fertilizing marls and green-sands of Tidewater, hydraulic cement of Balcony Falls, building-lime of Riverton and Eagle Rock, baryta of the Valley, pyrites of Louisa, asbestos of Pittsylvania, and slate and soapstone of Albemarle all have value.

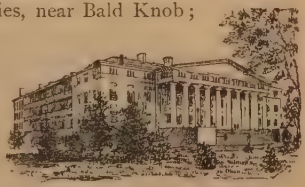
Pleasure-Resorts. — Old Point Comfort has been for many years one of the most famous pleasure-resorts on the American coast, frequented by well-to-do Northerners in winter and spring, and by the flower of Southern aristocracy in summer. Its huge Hygeia Hotel, with quarters for 1,000 guests, stands within biscuit-toss of Fort Monroe, and faces Hampton Roads, which afford safe harbor for countless vessels, from warships to yachts. The old Hygeia Hotel was built in 1821, by the post-sutler, and soon attained great favor, when the English, French and Spanish fleets came to Hampton Roads every season.

In 1862 the hotel was demolished, to give opportunity for the batteries to fire on that side. In 1864 the Hygeia again loomed into notoriety, between the grim walls of the fortress and the flashing waters of Hampton Roads. The late Harrison Phœbus for many years owned and conducted the hotel, which, with its extensive additions and improvements, at his death in February, 1886, was sold to the Hygeia Hotel Company, his widow taking the largest individual interest. It is now managed by his old-time associate, F. N. Pike. The young army-officers connected with the United-States Artillery School board at the Hygeia; and the famous fort-band furnishes music seven hours in each day, in the sea-girt pavilion of the hotel. Among the entertainments found here are attendance on the military ceremonials in Fort Monroe; steamboat-trips to Norfolk, and Portsmouth Navy yard; visits to the immense

OLD POINT COMFORT: HYGEIA HOTEL, AND FORT MONROE.

ship-yards at Newport News; excursions to Cape Charles; rides to ancient Hampton, the Soldiers' Home, and the famous Hampton School for Indians; and capital bathing and boating in the blue waters which sweep up almost under the hotel.

Nine miles distant, at Newport News, is the Hotel Warwick, a summer-resort looking out on the James River and Hampton Roads. Virginia Beach is below Cape Henry, facing the Atlantic, 17 miles by rail from Norfolk. It is a fine white strand, with deep woodlands behind and rolling surf before; and guests are entertained at the handsome and modern hotel called the Princess Anne. On the lower Potomac, Colonial Beach, with its hotel and cottages, has become a favorite place of summer rest for Washingtonians. Inland are several popular summer-resorts, like Buford, with its great Glendower House, near the Peaks of Otter; Liberty, eight miles from the Peaks; Roanoke, in the lovely Roanoke Valley; Mountain Lake, 4,500 feet high on the Alleghanies, near Bald Knob; Wytheville, with its dry and equable winters; Afton, high up on the Blue Ridge; and Harrisonburg, in the Valley of Virginia.


PORTSMOUTH: NAVAL HOSPITAL.

The famous mineral springs of Virginia are found mostly in the mountain-country. Among them are Blue-Ridge Springs, high up on the mountains; Coyner's Springs, with sulphur, alum, and iron waters; Farmville, with the strongest lithia water in America, which is shipped all over the country; Lake Springs, near Salem, and overlooking the Roanoke Valley, with iron waters; Roanoke Red-Sulphur Springs, ten miles from Salem, among the Alleghanies, and famous for their cures of consumption; Alleghany Springs, on the headwaters of the Roanoke; Montgomery White-Sulphur Springs, 2,000 feet above the sea, with a narrow-gauge railway down to the valley; Yellow Sulphur Springs, 3½ miles from Christiansburg, with a new hotel and bath-houses; New River (Eggleston) White Sulphur Springs; Sweet Springs and Sweet Chalybeate Springs, near Alleghany; Warm Springs (98°) and Hot Springs (110°), used mainly for bathing; Healing Springs, a mild tepid (85°) water, like that of Ems; and Bath Alum Springs. Elsewhere in the Valley are the Rockbridge Alum and Jordan Alum, and the Cold Sulphur; the Stribling and Variety Springs, in Augusta, and farther down the Shenandoah, the Orkney and the Rawley (iron) Springs, each more than 2,000 feet above the sea. Bedford Alum Springs are close to the ancient hamlet of New London, which was once captured by Tarleton's British cavalry, and more recently shelled by Hunter's Federal batteries. Near by is the Poplar-Forest estate of Thomas Jefferson, where he wrote the famous *Notes on Virginia.*

HAMPTON: NATIONAL SOLDIERS' HOME.

The Government is administered by a governor, elected by the people for four years, and eleven executive officers; the General Assembly of 40 four-years' senators and 100 two-years' delegates, meeting biennially; and the Supreme Court of Appeals, with five judges, and county courts and justices of the peace. The State Capitol is a handsome old classic building in a park of eight acres, at Richmond, and contains the State Library, of 40,000 volumes. It was modelled by Thomas Jefferson, after the Roman *Maison Carrée*, at Nimes.

The State Penitentiary near Richmond has 870 convicts. The Asylum for the Deaf, Dumb and Blind is at Staunton. The Eastern Insane Asylum, founded at Williamsburg in 1773, is the oldest in the United States. The Western Insane Asylum

CHARLOTTESVILLE: UNIVERSITY OF VIRGINIA.

was founded at Staunton in 1828; and there is also an Asylum at Marion. The Asylum for colored lunatics is at Petersburg.

The Virginia Volunteers include the First Infantry, of Richmond, six companies; the Third, of northern Virginia and Danville, eight companies; the Fourth, of southeastern Virginia, nine companies; and seven unattached companies. The First Battalion of Artillery has five batteries, including the famous Richmond Howitzers; and the First Battalion of Cavalry has five troops. There are two battalions (5 companies) and seven companies of colored infantry.

United-States Institutions.—Fort Monroe was built by Gen. Bernard, formerly aid-de-camp and lieut.-general of engineers under Napoleon, afterwards for many years Chief Engineer of the United-States Army, and subsequently Minister of War under Louis Philippe until 1837. The fortress was designed to defend Hampton Roads and Norfolk, to cover the interior navigation between Chesapeake Bay and Pamlico Sound, and to afford a naval place of arms and rendezvous between the Middle and Southern States. Its construction began in 1819, when Monroe was President, and the works have cost nearly $3,000,000. The fort covers 80 acres, with granite walls 35 feet high, and a broad encircling moat. On the seaward fronts there are detached casemated batteries. The interior parade-ground is surrounded by barracks and officers' quarters, and dotted with large live oaks. The United-States Artillery School was founded at Fort Monroe in 1824, and has been discontinued when the armies needed all their officers. It is now a school for the practical study of artillery, where young graduates of West Point are sent upon application.

LEXINGTON: WASHINGTON AND LEE UNIVERSITY.

At Hampton, two miles from Fort Monroe, is the Southern Branch of the National Home for Disabled Volunteer Soldiers. The handsome building of the Chesapeake Female College was the nucleus of a large number of other fine buildings, which are surrounded by beautiful flower-adorned grounds looking out on the historic Hampton Roads and Old Point Comfort. The Ward Memorial Hall contains the great dining-hall and theatre. The 3,000 veterans have a fine military band, and go through drills and inspections in true military style. In the beautiful cemetery adjoining are the graves of over 6,000 dead heroes.

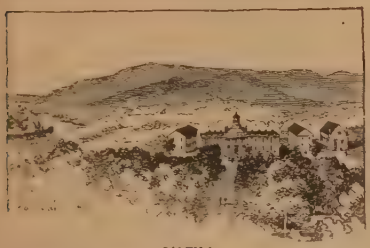
The old single-turret monitors *Wyandotte*, *Mahopac*, *Manhattan*, *Lehigh*, *Canonicus* and *Ajax* are laid up in ordinary in the James River, just below Richmond.

LEXINGTON: VIRGINIA MILITARY INSTITUTE.

The United-States Navy Yard at Gosport, Portsmouth, opposite Norfolk, was founded by the British before the Revolution, and afterwards used by the Virginia Navy. In 1801 the Government bought it, and here were built the *St. Lawrence*, *Powhatan*, *Colorado*, *Roanoke*, and *Richmond*. In 1861 the retreating Federal garrison destroyed the yard, and nine warships; but the National forces reoccupied it about a year later. It is now kept in first-class order, with large shops and storehouses and docks. There is a very spacious and handsome Naval Hospital near by, built in 1828 9, at a cost of $2,000,000, and accommodating 600 persons. It is surrounded by beautiful grounds.

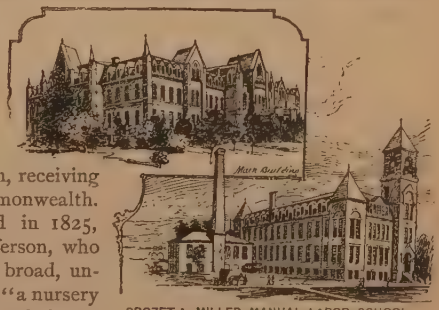
The National Cemeteries are at Arlington, opposite Washington, with 16,292 graves; at Alexandria, 3,524; at Ball's Bluff (near Leesburg), 25; at City Point, 5,158; at Culpeper, 1,368; at Danville, 1,328; at Fort Harrison, 817; at Fredericksburg, 15,273; at Glendale, 1,198; at Hampton, 6,174; at Poplar Grove, 6,199; at Richmond, 6,542; at Seven

Pines, 1,371; at Staunton, 757; at Winchester, 4,481; at Yorktown, 2,183. These 75,000 men, and the uncounted myriads lying in unmarked graves on the Peninsula and between the Potomac and the Rapidan, are a part of the cost of restoring Virginia to the Union of States, so many of which were her children.



SALEM: ROANOKE COLLEGE AND ALLEGHANY MOUNTAINS.

Education is conducted under the system founded in 1870, with primary, intermediate, scientific and university teaching, administered by the Board of Education, at a yearly cost of above $1,500,000, and with school-property valued at $2,000,000. The normal schools for whites are at Farmville, Williamsburg and the University of Virginia; those for colored pupils are at Hampton and Petersburg. The University endowed at Henrico in 1619, and the projected *Accademia Virginiensis et Oxoniensis*, planned in 1621, having come to naught, in 1691 the Colonial Assembly sent Blair to England to secure a charter for a college. Attorney-General Seymour demurred; and when the envoy suggested that Virginians had souls to save, he roared: "Souls! Damn your souls! Make tobacco!" Nevertheless, the charter was given, in 1693, and the College of William and Mary, well endowed by England and Virginia, opened its courses at Williamsburg, being second only to Harvard in point of age. William and Mary of England gave it rich gifts; and Sir Christopher Wren designed the buildings. For over a century this was the chief Southern school of statesmen, with President Monroe, Chief-Justice Marshall, Thomas Jefferson, the Randolphs and many others as students, and George Washington as chancellor. The institution flourished until 1860, when its professors and students went to the war. The college was burnt, and, although rebuilt after peace came, financial embarrassment closed its gates within a few years. It is now used as a State Normal College for men, receiving $10,000 a year from the treasury of the Commonwealth.



CROZET: MILLER MANUAL-LABOR SCHOOL.

The University of Virginia was opened in 1825, mainly through the efforts of Thomas Jefferson, who founded here a seat of the highest learning, broad, unsectarian, devoted to science and liberty, and "a nursery of republican patriots, as well as genuine scholars." He watched over it with zealous care, until this institution became (as it has ever since remained) one of the leading intellectual forces of America. The University occupies a beautiful and extensive estate in the foot-hills of the Blue Ridge, close to the interesting old town of Charlottesville. The arrangement of the buildings is almost monastic in effect, having four parallel ranges, each 600 feet long, of cell-like one-story dormitories for the students, with cloister-like arcades and colonnades stretching along their fronts, and several larger structures breaking the sky-lines, and used for society halls, boarding-houses, and professors' houses. The outer buildings front on the roads, the inner ones on a great lawn, which is dominated at one end by the Rotunda, modelled nearly after the Roman Pantheon, and adorned with a very striking and classical marble portico. The upper part of this noble building contains the library, of 50,000 volumes, in a circular hall, surrounded by Corinthian columns,

HAMPTON: NORMAL AND AGRICULTURAL INSTITUTE.

and adorned with portraits and Galt's statue of Jefferson. These are the ancient buildings of the University, designed by Jefferson. The more modern additions include the Lewis Brooks Museum of Natural History, with its great collections; the observatory, built by the munificence of Leander J. McCormick, of Chicago, and containing one of the largest refracting telescopes in the world; the handsome stone chapel in Gothic architecture; and the experimental farm. The University has 30 professors and instructors, and 460 students, 15 of whom are from the North. Of these 250 are academical, 120 law, 100 medical, 30 engineering, two pharmaceutical, and four agricultural. There are 19 distinct and autonomtic schools, on the elective system, and several post-graduate courses. White male students from Virginia, after passing an entrance examination, are taught free of cost. The yearly income of the University is $90,000; and $900,000 has been given to it since the close of the war. Among the many munificent gifts, the Hon. Cyrus H. McCormick, of Chicago (a Virginian born), gave $40,000; and W. W. Corcoran, of Washington, $60,000.

The first classical school in the Valley was Augusta Academy, founded in 1749, by the Scotch-Irish Presbyterians. This institution grew into the famous Liberty Hall Academy, which George Washington endowed with a large property given to him by the State of Virginia, after which (in 1813) it took the name of Washington College. Gen. Robert E. Lee, late commander of the Confederate army, held the presidency of the institution from 1865 until his death, in 1870. In those last years, Gen. Lee always taught his young Virginians loyalty to and faith in the United States, as their paramount duties. His remains lie in a crypt under the college chapel, over which, and visible from the audience room, is Valentine's noble recumbent statue of the Southern chieftain. In 1871 the Legislature named the institution the Washington and Lee University. George Peabody, of Massachusetts and London, gave it $250,000, and Thomas A. Scott, of Pennsylvania, gave it $60,000. The property of the University, at Lexington, is worth $600,000.

The Virginia Military Institute, founded at Lexington in 1839, bases its instruction and government upon those of West Point, and has a four-years' course, largely devoted to science and the modern languages. There are 400 cadets. The State pays $15,000 a year for the board and tuition of 50 students. The corps of cadets marched into the Valley, in 1864, and suffered heavy losses in Early's campaign against the United-States forces; and Gen. Hunter's Federal army destroyed the institute buildings. More than half of the graduates were killed or wounded in the Secession War.

The Virginian Agricultural and Mechanical College and the United-States Experiment Station occupy a farm of 325 acres at Blacksburg, in the Valley. There are 110 students, under military instruction and discipline. The Miller Manual-Labor School was founded by private munificence, at Crozet, in 1878, and has above 200 students, in wood and iron-working and agriculture. The endowment is $1,000,000. Roanoke College pertains to the Evangelical Lutheran Church, and dates from 1853. It is at Salem, in the rich and picturesque Roanoke Valley; and has a Main Building, East and West Halls, and the Bittle Memorial Library (18,000 volumes), in pleasant grounds of 20 acres. There are 100 collegiate students. Several Mexican and Japanese youths have studied here; and it is a favorite school for Choctaw Indians, whose leading men have been graduates of Roanoke. Randolph-Macon College has a dozen buildings, on an oak-shaded campus of 12 acres, in the pleasant village of Ashland, 16 miles north of Richmond. There are 17 instructors and 200 students. The college was founded by the Virginia Methodist-Episcopal Conference, at Boydton, and named for the representatives in Congress of the neighboring districts. Stephen Olin was the first president, from 1832 to 1838. In 1868 it was moved to Ashland. The preparatory department is the beautiful new Randolph-Macon Academy, at Liberty. Richmond College was founded by the Baptists in 1830, and took its present name in 1843. Turned into barracks in 1861–5, it re-organized the year after the war, and now has a handsome modern building, on a campus of 13 acres. There are nine professors and 150 students (mostly Virginians).

Emory and Henry College, named for Bishop John Emory and Patrick Henry, was founded by the Methodists in 1838, in a beautiful valley, nine miles east of Abingdon. Hampden-Sidney was founded as a Presbyterian academy, in 1776, and bears the names of the two great English patriots. It became a college in 1783, and occupies a domain of 250 acres, not far from Appomattox. This venerable institution has six professors and 100 students. The law-schools are at Richmond, Lexington and Charlottesville, and the medical colleges at Charlottesville and Richmond.

The Episcopal Theological Seminary stands on the heights back of Alexandria, commanding a grand view of Washington and the Potomac River. It was founded in 1823, and has a three-years' course. Salem has the Lutheran Theological Seminary (founded at Lexington, S. C., in 1831). Hampden-Sidney has the Presbyterian Seminary, dating from 1824; and St.-John's Theological Seminary, of the Catholics, is at Norfolk. The Methodists have divinity schools at Randolph-Macon and Emory and Henry Colleges.

The Hampton Normal and Agricultural Institute was opened in 1868, by the American Missionary Association, and is supported in part by the State of Virginia, as an agricultural school for negroes; in part by the United-States Government, which pays the personal expenses of 120 Indian students; and in part by charitable persons, from whom it receives $60,000 a year. It is not a Government institution, but a private corporation, owning its property, and administered by 17 trustees. It educates by self-help, most of the students paying by their labor for their board, clothing and books. It aims by training the hand, the head and the heart to fit selected youth of the Negro and Indian races to be examples to, and teachers of, their people. The students of the two races are usually kept separate, and are friendly, but not intimate. The school was founded for the freedmen, but in 1878 Kiowa, Cheyenne and Sioux Indians were added. There are 80 officers and about 700 students (one fifth Indians), besides 300 in the preparatory school. The students include both boys and girls, the former being drilled in a battalion of six companies, under an army officer. The property of the school is worth $500,000, and includes two large farms, and many commodious buildings. The founder and principal of this wonderful school is Gen. S. C. Armstrong.

Railroads.—The Atlantic Coast Line is a splendidly organized service on various connecting routes, giving the best possible convenience for travellers between New England and New York and Charleston, Savannah and Brunswick, Mobile and New Orleans, and the pleasure-resorts of the Florida peninsula. To make this long and important national route of the highest utility, the independent companies over whose rails it passes have given its trains the right of way, so that Pullman sleeping and buffet cars run without change from Boston to Jacksonville, in about 40 hours. This is the favorite route from the great Northern cities to the capital of the Old Dominion, the chief cities and winter-resorts of the Carolinas and Georgia, and the semi-tropical beauties of the Land of Flowers. At Tampa Bay it connects with steamships for Key West and Havana. Travellers along the Eastern sea-board of the United States find an ideal route in the Atlantic Coast Line. This grand combination of routes was planned and brought about by William T. Walters, of Baltimore, and his following. Mr. Walters is now the president of the Atlantic Coast Line Company, and a managing director in each of the dozen or more corporations now united under this control, and covering the South-Atlantic States with a net-work of first-class railways. The Norfolk & Western Railroad runs from Norfolk to Lynchburg and the mountains of Kentucky and Tennessee, connecting with the East Tennessee, Virginia & Georgia line; and down the Shenandoah Valley from Roanoke into Maryland. The Chesapeake & Ohio, from Newport News through the mountains to Cincinnati; and the Richmond & Danville, are important routes.

RICHMOND; ATLANTIC COAST LINE DEPOT.

The Manufactures of Virginia have increased very much since the war, and the machine and locomotive works of Richmond, Glasgow and Roanoke; the tobacco-factories of Lynchburg, Petersburg and Danville; the Haxall flour-mills of Richmond; are famous.

At Glasgow, Virginia, is to be the great plant of the George L. Squier Manufacturing Company, the famous makers of rice, sugar and coffee plantation machinery. The plant, with its seven acres and its well-constructed brick buildings, will be one of the most notable enterprises in Virginia. The business was established in 1857, at Buffalo (N.Y.), where part of it is still conducted. In New-York City are the main sales-rooms and warehouses. The company was incorporated in 1884, and has a paid-in capital of $200,000. The Squier machinery is in use in every tropical country and island of the world, but the largest part of it goes to Mexico and Central and South America. No house in America makes so large a variety of the machinery used in handling rice, sugar and coffee, and no concern controls so many patents pertaining to vacuum-pans and pumps, clarifiers, evaporators, charcoal and bag filters, cane-mills, double and triple effects, centrifugal machines, and steam engines. The Squier catalogues are in English, Spanish and Portuguese; and the company keeps several expert engineers setting up their machines in the tropics. There are 100 different sizes and styles of sugar-mills, and other machinery in proportion, so they make several hundred different machines, adapted to various countries. Everything needed in the rice, sugar and coffee industries is furnished from general stock or especially designed to meet any requirements, the George L. Squier Company being engineers as well as machinists.

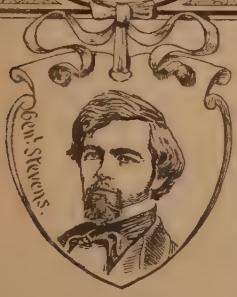
GLASGOW: GEO. L. SQUIER MFG. CO.

The making of cigarettes has brought a world-wide patronage to Richmond, where the old house of Allen & Ginter was the first ever to use for cigarette-making the pure and aromatic virgin-leaf tobacco, which is grown exclusively in Virginia and North Carolina. After a successful career, the house has become the Allen & Ginter Branch of the American Tobacco Company, having $25,000,000 of capital, and which owns and operates practically all the cigarette factories in this country. This branch has the distinction not only of being the pioneer in the adoption of Virginia tobacco for cigarettes, but also of having made the highest grades, and to-day the greater part of all the highest cost cigarettes are made here. The finest cigarettes are hand-made, and it is remarkable to see the speed and accuracy attained by the long rows of girls who roll, paste, trim, count and pack the famous Richmond Straight Cut No. 1 cigarettes, a brand well-known by smokers everywhere. Other brands are made by ingenious machinery. There are employed 1,500 operatives, all white, and mostly girls of from 15 to 25 years. At the Allen & Ginter Branch 600,000,000 cigarettes are made each year, mainly of the finest qualities, so that the value of the output surpasses that of any cigarette factory in the world. Besides cigarettes, of which there are a number of brands and varieties, the Richmond Gem, Curly Cut, and fancy mixtures in smoking tobaccos are also produced. Major Lewis Ginter, one of the founders of the old firm, and John Pope are the managing directors of this branch of the company.

LEAF DEPARTMENT AND STEMMERY.

MAIN FACTORY

STORAGE WAREHOUSE. RICHMOND: ALLEN & GINTER.



HISTORY.

There was a Greek mariner, Juan de Fuca of Cephalonia, who claimed to have explored these shores and entered the Strait in 1592. Bancroft, Winsor and other authorities maintain that he never saw the Northwest Coast; yet all the navigators of the last century called the Strait after the Cephalonian pilot. The first modern explorer of the Washington coast was Juan Perez, cruising in the Spanish transport *Santiago*, in 1774. A year later, Bruno Heceta examined the shores for a great distance. In 1778 Capt. James Cook sailed along the coast in the *Resolution*, a British naval vessel, making careful explorations. In 1787 Capt. Barclay saw, and in 1788 Capt. Meares explored, the Strait, under the British flag; and fur-traders cruised along the coast, buying sea-otter furs from the Indians.

Now at last the Stars and Stripes flashed across the Northwestern seas, when six Boston merchants sent out Capt. John Kendrick and the ship *Columbia*, and Capt. Robert Gray and the sloop *Lady Washington*, to trade with the Indians for furs. In 1789 Capt. Gray entered several Washington harbors; and two years later he discovered and named Gray's Harbor, and ascended for 25 miles the great river, to which he gave the name of his ship, the *Columbia*. Spain claimed all these coasts by virtue of discovery, and her officers erected defences on Vancouver Island, and captured several British trading vessels. In 1790 Great Britain extorted from Spain a treaty allowing her people to trade and settle here. In 1791–2 George Vancouver, an officer of the British navy, explored much of the Northwest Coast, and the island which bears his name; and took formal possession of the country from 39° 20′ to the Strait of Fuca, in the name of the British Government. In 1805 Lewis and Clarke, with an exploring party of American soldiers, descended the Clearwater, Snake and Columbia Rivers to the Pacific Ocean, and wintered on the Coast.

STATISTICS.

Settled at	Tumwater.
Settled in	1845
Founded by	New Englanders.
Became a State,	1889
Population, in 1860,	11,594
In 1870,	23,955
In 1880,	75,116
White,	67,199
Colored,	7,917
American-born,	59,313
Foreign-born,	15,803
Males,	45,973
Females,	29,143
In 1890 (U. S. census),	349,390
Voting Population,	27,670
Area (square miles),	69,180
U.-S. Representatives (in 1893),	2
Militia (Disciplined),	1,145
Counties,	34
Post-offices,	701
Railroads (miles),	1,783
Vessels,	191
Tonnage,	61,724
Net Debt (1890),	$300,000
Assessed Valuation of Property (in 1890),	$125,000,000
Farm Land (in acres),	1,409,421
Farm-Land Values,	$13,844,244
Farm Products (yearly)	$4,212,750
Public Schools, Average Daily Attendance,	29,247
Newspapers,	194
Latitude,	45° 40′ to 49° N.
Longitude,	117° to 124° W.
Temperature,	—31° to 104°
Mean Temperature (Steilacoom),	51°

TEN CHIEF CITIES AND THEIR POPULATIONS. (Census of 1890.)

Seattle,	42,837
Tacoma,	36,006
Spokane Falls,	19,922
Walla Walla,	4,709
Olympia,	4,698
Port Townsend,	4,558
Fairhaven,	4,076
Whatcom,	4,059
Vancouver,	3,545
Ellensburgh,	2,768

MOUNT TACOMA, OR RAINIER.

For many years the history of Washington is only a record of the Hudson-Bay and Northwest Companies and their fur-trading posts and explorations. Together with Oregon, it lay in the territory held in dispute between the United States and Great Britain, and jointly occupied by their citizens, until 1846, when it was definitively taken by the American Government. The growth of Washington was very slow, owing to its inaccessibility, until the construction of the railroads eastward to Minnesota and southward to California. Since that time a healthy and prosperous development has taken place. The pioneers of Washington came from Maine, Massachusetts, and other New-England States, and were followed by a larger immigration from Missouri and the Middle West. Gen. Isaac I. Stevens, U. S. A., led an important exploring expedition across the Rocky Mountains into Washington in 1853, and held the governorship of the Territory for four years. He was afterwards killed at the battle of Chantilly, Va., while commanding a division of the Army of the Potomac.

The Name Columbia was suggested by the people interested in having the new territory set apart from Oregon in 1853; but Representative Stanton of Kentucky objected, pointing out the danger of its confusion with the District of Columbia, and saying that "it would be very appropriate to name a Territory situated on the distant shores of the Pacific after the Father of his Country." Representative Stanly added: "There has been but one Washington upon earth, and there is not likely to be another; and, as Providence has sent but one, for all time, let us have one State named after that one man, and let the name be Washington." The poetic imagination of the Northwestern people names the Walla-Walla country, "the Rhineland of America;" and Puget Sound, "the Mediterranean of the Pacific" and the "Gateway of the World;" and the ports of Seattle, Tacoma and Port Townsend are called, respectively, "the Queen City," "the City of Destiny," and "the Key City of Puget Sound." For many years the people west of the Cascades were known as "clam-eaters," and those on the east as "bunch-grassers." At the Constitutional Convention of 1889 an attempt was made to have the Washingtonians known as "Chinookers." The Chinook jargon is the language of the aborigines, trappers and squaw-men of the Northwest Coast.

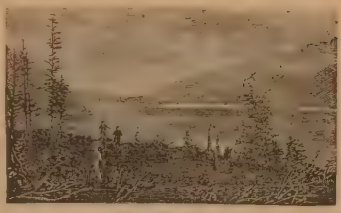
CAPE FLATTERY.

The United States early proclaimed the Canal de Haro to be her northwestern boundary, but Great Britain insisted that it should be the Strait of Rosario. The Archipelago de Haro (or San-Juan Islands), lying between these limits, was occupied by troops of the two powers, until the Emperor of Germany, acting as arbitrator, in 1872, adjudged the American claim to be right.

MOUNT TACOMA.

TACOMA: HOTEL TACOMA.

The Arms of Washington bears a portrait of George Washington. The motto is ALKI, a Chinook phrase, meaning "By and By," "In the Future," or "Hereafter." It was adopted by the first legislature, at the suggestion of Col. Michael Simmons, as a presage of the future greatness of the Commonwealth.

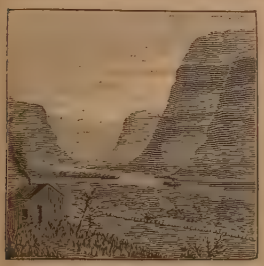


PUGET SOUND.

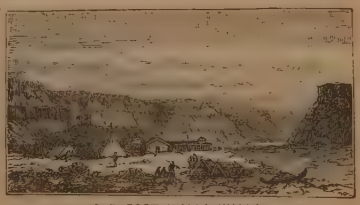
The Governors of Washington have been: *Territorial:* Isaac I. Stevens, 1853–7; J. Patton Anderson, 1857; Fayette McMullin, 1857–61; Richard D. Gholson, 1861; Wm. H. Wallace, 1861; Wm. Pickering, 1861–7; Marshall F. Moore, 1867–9; Geo. E. Cole, 1869; Alvin Flanders, 1869–70; Edward S. Salomon, 1870–1; James F. Legate, 1871–2; Elisha P. Ferry, 1872–80; Wm. A. Newell, 1880–4; Watson C. Squire, 1884–7; Eugene Semple, 1887–9; Miles C. Moore, 1889–90; Elisha P. Ferry, 1890–3.

Descriptive.— The topography of Washington possesses features of great interest, in its deep salt-water estuaries and sounds, its long mountain-ranges, and the illimitable rolling plains of the east. The State is 350 miles wide, from Idaho to the Pacific Ocean, and 230 miles long, from Oregon to British Columbia. It is larger than the united areas of New York, Maryland and Massachusetts.

The Cascade Range divides the State into eastern and western Washington, differing in climate and products, soil and topography. The east covers a wide area of open tillable and grazing lands; the west, broken by many mountains and bays, is mantled by huge forests. Fully 20,000,000 acres are covered with timber, 10,000,000 with arable lands, 5,000,000 with rich river-bottoms, and 10,000,000 with wooded mountains and mineral lands. The Pacific coast is followed by a broken northern continuation of the Coast Range, rich in forests, and reaching heights of from 3,000 to 5,000 feet. This rugged peninsula finds its garden-spot in the famous Chehalis country, 2,000 square miles of rich land running from Gray's Harbor to the Cascades. In the extreme north, at the head of the peninsula between Puget Sound and the Pacific, the Olympic Mountains cover 3,000 square miles, and their thickets and wide belts of timber long retarded exploration. Nearly all the year long these untrodden peaks are crowned with dazzling snow, and stand ranked like lines of battle along the Pacific, the Strait and the deep and dark Hood's Canal. The long valley between the Cascade and Coast Ranges is a thickly populated and pleasant farming country, 50 or 60 miles in width, favored by a delightful climate, and including the chief cities and oldest settlements. The great volcanic plateau of the Cascade Range runs north and south, covered on both sides with heavy forests, and including extensive table-lands, from 3,000 to 5,000 feet high, clad with nutritious grass. Volcanic eruptions have been observed here since 1810, and on some of the high cones the rocks are hot, and steam and smoke pour from their crevices. Deep cañons cut into the plateau, and above it rise sharp volcanic cones, making a variety of noble scenery. North of the Stampede Pass the Cascades grow higher and more rugged; and above the Upper Columbia they meet the Rocky Mountains, in a land of wooded ridges and pleasant valleys. In Washington the Cascade Range may be crossed at the Snoqualmie Pass, 3,110 feet high; the Natchess, 4,900; the Stampede, 3,980; the Cowlitz, 5,500; and the Cascade. Mount Tacoma, 14,444 feet high, is one of the most majestic and beautiful of American peaks, and lifts its white crest high over western Washington, visible for scores of miles. Eight great glaciers stream downward from its immemorial snows, and out of their bases pour five rivers, the Cowlitz, Chehalis, Nisqually, Puyallup and White. Theodore Winthrop, one of the early



THE SNAKE RIVER.



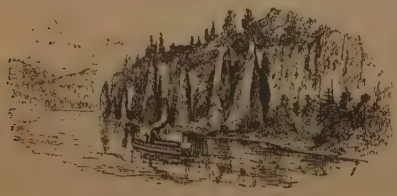
OLD FORT WALLA WALLA.

WALLA WALLA.

explorers of this region, and Hazard Stevens, the first man who ascended the peak, state that the Indians called it *Tacoma*, signifying "mountain," but especially applied to this as the sovereign of mountains. In 1792 Vancouver named it *Rainier*, after one of the lords of the British Admiralty. In the city of Tacoma the Indian name is used, and in Seattle Rainier is preferred. This chief summit rises from vast and almost untrodden forests, and is nobly seen from the blue waters of Puget Sound. Near the Columbia River are the lofty volcanic cones of Mount Adams and Mount St. Helen's, each nearly 10,000 feet high, and visible over many leagues of the valley. In the north stands Mount Baker, 10,755 feet high, a volcano which had eruptions in 1843, 1854, 1858 and 1870, pouring out vast volumes of smoke 2,000 feet high, and covering the country with ashes, like a snowfall. St. Helen's also had an eruption of ashes in 1843. The Cascade Range sends off numerous long ridges and plateaus to the east and southeast, clad with poor grass, sage-brush and scattering timber. The Yakima Valley is 20 by 30 miles in area, and has valuable fruit and grain farms, carefully irrigated, and large areas of bunch-grass for grazing live-stock. Tobacco, hops and alfalfa are raised in this region. The Kittitas Valley covers an area of 20 by 35 miles, and is higher and cooler than the Yakima Valley. Ellensburgh is the metropolis of this region.

The Great Plain of the Columbia, one of the chief agricultural regions of the Pacific States, is bounded by the Columbia and Spokane Rivers and the Idaho and Oregon frontiers. It is in the main an undulating grassy country, with broad areas of sage-brush. It was long supposed that this vast volcanic desert had no agricultural value; but Dr. Bingham's successful experiments with alfalfa astonished all observers, and directed to the Great Plain thousands of farmers, whose estates are now attractive and prolific. The Big-Bend Country, near the centre of Washington, covers 4,800 square miles, a third of it gently rolling brown-loam prairie, suitable for farming, and the rest in low hills and plateaus of bunch-grass and sage-brush, where live-stock is ranged. The Columbia River curves around this volcanic plain, bounding it on the north and west, and partly on the southwest, for 200 miles, and flowing in a narrow valley 1,500 feet below the general level. The region is traversed by several remarkable chasms, like the Grand Coulée, scores of miles long, and from a furlong to half a league wide, with sheer walls of black basalt 500 feet or more in height. There are a dozen villages in this region, and hundreds of wheat farms.

In southeastern Washington, between the Blue Mountains and the Snake and Columbia Rivers, lies the Walla-Walla Country, including 8,000 square miles, and rich in golden wheat-fields. Walla Walla stands in an immense rolling expanse of wheat, dotted with farm-houses and orchards, and bounded by mountains which rise by gentle slopes to snowy crests. At times this broad plain is visited by tall and tawny pillars of dust, resembling water-spouts at sea, and reeling swiftly across the country. The first settlement on the great plain was made at Walla Walla, by Dr. Whitman, the missionary hero, who saved the Oregon Country to the United States. The Palouse Country is a high rolling prairie, without timber, but abounding in wheat farms, on the loam produced by the decomposition of the volcanic rock. It extends from the Snake River northward for 150 miles, nearly to Spokane Falls, with an average breadth of 25 miles.



CAPE HORN, ON THE COLUMBIA RIVER.

There is a vast area of bunch-grass pasture-land, with singular sugar-loaf buttes rising here and there, and small streams flowing between basaltic palisades and in the depths of forested gorges. The Spokane Country, around Spokane Falls, and the Colville Country, between the Columbia and Clarke's Fork, abound in plump white wheat and elephantine potatoes.

PUGET SOUND: OLYMPIC MTS., FROM SEATTLE.

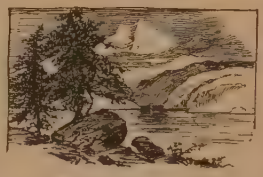
The great Columbia River winds across the State, receiving Clarke's Fork and the Snake River (Lewis Fork), and cutting through the Cascade Range. Much of its course, as well as the courses of its tributaries, lies in cañons in the volcanic plateaus, although above the Big Bend there are bottom-lands, bordered by wooded hills and grassy prairies. The Columbia flows south from the frontier 110 miles to the Big Bend; then west to the Okanogan, 93 miles; south to the Snake, 220 miles; west to the Dalles, 100 miles; and west to the Pacific Ocean, 140 miles. Steamboats run daily from Portland up and down the river. Improvements are under way to make the Upper Columbia and the Snake navigable for grain-bearing steamers. The mouth of the Columbia was formerly obstructed by a perilous outer bar, but the United-States Engineers have straightened the channel, and hope to give it a depth of 30 feet. Even then the sea will break clear across it in stormy weather. Vessels bound in sometimes used to lie to for weeks outside the river, whose openings, five miles wide, and filled with racing breakers, resembled the rapids above Niagara. The Snake River is navigable for 150 miles in Washington, flowing through the lava in a cañon from 1,200 to 2,000 feet deep. Steamboats run semi-weekly from Riparia to Lewiston and Asotin, 84 miles. The rivers flowing from the Cascade Range bear odd old Indian names—Methow, Chelan, Wenatchee, Yakima, Snoqualmie, Klickatat, Cowlitz, Chehalis, Puyallup, Snohomish, Nisqually, Steilaguamish, Duwamish, Nooksack, and Skagit. Some of them are traversed by light-draught steamboats, visiting their ports. The falls of Multnomah, Tumwater, Snoqualmie and other localities are famous for their beauty. There are but two deep harbors on the Pacific coast of Washington. Willapa (or Shoalwater Bay) covers a great area, and has valuable oyster-beds and fisheries, and possibilities of great commercial importance. The heart-shaped Gray's Harbor has several villages, with a large lumber-trade; and steamboats ascend the Chehalis River twelve miles to Montesano, the shire-town. The chief harbors on the Strait are Crescent Bay, Port Angeles and New Dungeness. The Strait of Juan de Fuca runs eastward from the Pacific Ocean for 50 miles, with a width of from eight to twelve miles, and a depth of from 40 to 100 fathoms, and then rapidly widens into Washington Sound, containing the San-Juan Islands. The Strait ends at Whidby Island, 85 miles from the sea.

SEA VIEW, NEAR CAPE DISAPPOINTMENT.

Puget Sound is one of the most beautiful salt-water estuaries in the world, with its forest-clad borders and lofty mountains. The depth of water varies from 300 to 800 feet. At many points vessels of the largest size can be moored to the trees; or, as Admiral Wilkes said: "A ship's side would strike the shore before the keel would touch the ground." The main entrance to the Sound is Admiralty Inlet, three miles wide, and with the singular channel of Hood's Canal diverging 58 miles to the southwest among

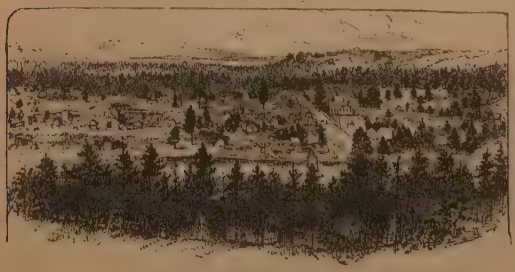
WALLA WALLA VALLEY, LOOKING WEST.

the mountains. Sixty miles from the mouth of Admiralty Inlet, and near Tacoma, Puget Sound is compressed from a width of from three to five miles into the Narrows, less than a mile wide, and five miles long, inside of which it widens away around many islands, towards Olympia, with deep tidal inlets radiating like the spokes of a wheel over nearly 300 square miles. Lieut. Puget was a British naval officer in the expedition of Vancouver, who gave his name to the waters inside of Dana's Passage, calling the rest of the Sound Admiralty Inlet. By 1870 the name of Puget Sound had been popularly extended as far as the Narrows; and now it covers the waters to Bellingham Bay, or even to the Gulf of Georgia. In this largest extension the Sound has a shore-line of 1,600 miles, and includes 2,000 square miles. The exports of Puget Sound reach $9,000,000 a year, two thirds of it along the coast, and the rest to foreign ports. Washington ships 250,000 tons of wheat to Europe yearly; and when the Isthmus of Panama is pierced, grain-laden steamships can run from Puget Sound to Liverpool in three weeks, saving 40 per cent. in cost of shipment (which is now 35 shillings a ton). The nine mountainous islands of San-Juan County abound in scenic beauty, and the view from Orcas, their highest point, 2,440 feet above the tide, includes the entire Archipelago de Haro, and the snowy peaks of the Cascade Range for scores of leagues. The 2,000 islanders are mainly fruit farmers and shepherds, and have seven churches and ten post-offices. Steamers run daily from the Archipelago, alternately to Port Townsend and Schome. The islands have deposits of iron and marble; and also make and export 400,000 barrels of lime every year. In a fine harbor of Fidalgo Island is the new city of Anacortes, founded in 1890 for the western terminus of several railways (bridging a narrow channel), and a port for the steamship lines. Within three months the population rose from 25 to 3,000. Whidby Island, with 115,000 acres, and Camano Island, with 30,000 acres, lie near the mouth of Puget Sound, and form Island County, which has 1,300 inhabitants, farmers, lumbermen and ship-builders.



GLIMPSE OF MOUNT ADAMS.

The Fisheries are of value and interest. The sounds, bays and rivers teem with valuable food-fish, enormous sturgeon, herring, smelt, sole, flounders, shad, and other varieties. Large halibut and cod dwell in Puget Sound, and outside. The fat black cod and the cultas (or buffalo cod) are caught in vast numbers in the Strait and Sound. The Makah Indians kill many California gray whales off Cape Flattery; and also dry yearly 1,600,000 pounds of halibut, weighing from 35 to 250 pounds each. There are 10,000 fur-seals caught yearly, and many valuable sea-otter are shot by riflemen. The oysters of Puget Sound and Shoalwater Bay are shipped by hundreds of thousands of baskets, being highly esteemed for their delicate flavor. Clams and quahaugs are found in vast numbers. The salmon-fisheries of the Columbia, Shoalwater Bay, Gray's Harbor and Puget Sound amount to $1,500,000 a year. The fish are easily caught, and are canned, smoked and salted. In 1888 a fleet of Massachusetts fishermen sailed around Cape Horn, and discovered halibut off this coast. There are ship-yards on Puget Sound and the Pacific Coast, where many vessels are built from the famous red and yellow fir. Seward prophesied that "Sooner or later the world's ship-yards will be located on Puget Sound." A thousand vessels sail from the Sound yearly, bearing $9,000,000 worth of lumber, coal,



MEDICAL LAKE

salmon and grain; and the Washingtonians have already built up a profitable trade with China and Japan.

WAITSBURGH.

There are scores of beautiful lakes on both sides of the Cascade Range, and far up in the Columbia Valley. The chief of these is Lake Chelan, winding for many leagues among the mountains, in a lonely and unoccupied land. Medical Lake, on an evergreen and lava-strewn plateau, 26 miles southwest of Spokane Falls, is 1½ miles long, and contains a great variety of healing minerals, giving the water a dark chocolate-brown hue and a smooth soapy feeling, and concentrated at the bottom in a jelly-like deposit a foot thick. Thousands of people visit the lake-hotels every summer, drinking and taking hot and cold baths, for the relief of rheumatism, catarrh and diseases of the skin and stomach. The Green-River Hot Springs pour out their iron, magnesia and sulphur waters in the magnificent cedar forest on the western slope of the Cascades, attracting many rheumatics and trout-fishers to the hotel near by. Yakima Soda Springs produce a valuable and favorite water, which is exported. Out on the coast, close to the lofty basaltic cliffs of Cape Disappointment, is the pleasant summer-resort of Sea View, where thousands of vacation tourists enjoy salt-water bathing, boating and fishing.

NORTH YAKIMA: HOP AND GRAIN FARM.

The Climate is singularly equable and moist in the west, with a heavy winter rainfall, and a mean annual temperature of 46°, cool in summer and mild in winter, and resembling the climate of southern England and the Channel Islands. The clear, bright summer days are succeeded by long northern twilights and cool nights. East of the Cascades the rainfall is light, and the mean annual temperature falls to 45°. The summers are hot and dry, and the winters short and cold. Spring begins in February, and lasts till mid-May, with a temperature of 52°, and considerable rain. In autumn the days are warm and bright, with frequent showers and frosty nights. From June to September little rain falls, and the weather is perfect for harvesting. The Chinook wind, balmy and perfumed, comes off the Pacific, cool in summer and warm and moist in winter, usually gentle in its motion, but eating up the snow and ice with wonderful rapidity, and crossing the mountains with its benignant influences until it fades away in the upper Missouri valley. The east wind, coming down the Columbia Valley, freezing in winter, and hot and dusty in summer, is abominated by the people, but has only a short duration. Roses have bloomed at Seattle in December, and pansies at Walla Walla in January, and peaches blossom at Olympia in February, with snowbanks in sight of either in August.

Agriculture has already made notable progress and will probably become the leading industry. The wheat-crop reaches 15,000,000 bushels yearly. In Eastern Washington 820,000 acres of land are improved, and 133,000 in Western Washington. The east is suited for raising a great variety of fruits and vegetables,

MEDICAL LAKE: HOSPITAL FOR THE INSANE.

YAKIMA VALLEY: HOP CULTURE.

tobacco and hops. Wheat-culture and stock-raising have already assumed considerable importance on these great bunch-grass prairies; and hundreds of miles of irrigating canals flow through the Kittitas and Yakima and other valleys. Corn grows abundantly in the Walla-Walla Country. Western Washington produces great quantities of grains and grasses, vegetables and fruits. Prunes and plums, apples and pears, thrive and are largely cultivated. In 1864 the entire crop of hops was one bale, raised as an experiment. The product in the State is now 40,000 bales, worth $1,500,000, and of the best quality as to flavor. A regular transport service has been inaugurated between Tacoma and London, trains laden with hops running direct to New York to meet the steamships. The Puyallup Valley, near Tacoma, is celebrated for its carefully cultivated hop-fields, covering many leagues, and yielding 1,500 pounds to the acre. The hops are picked by Indians, 5,000 of whom come hither in the harvest-time, in canoes up Puget Sound and on ponies over the mountain-trails—the women and children to toil in the fields, and the men to smoke and loaf. The measureless forests of Western Washington furnish masts and spars for England and France, for Chile and the Asiatic ports, of remarkable flexibility and tenacity of fibre, strong, light and free from knots and flaws. The Douglas (or red) firs sometimes reach a height of 300 feet, and yield spars 150 feet long and planks 90 feet long. They are erroneously called Oregon pines. There are 5,000 men engaged in the lumbering industry, cutting yearly over 1,200,000,000 feet, much of which goes down the coast to San Francisco, or across to Australia. The busy saw-mills that have been working here for a quarter of a century have made no impression on the massive fir forests.

BIG LUMBER.
ST.-PAUL & TACOMA LUMBER COMPANY.

The lumbering industry of Puget Sound is second to that of no section in this country, and even the great forests of Michigan are not superior to those of the North Pacific Coast. The timber is remarkably straight, and has for years been noted for its beauty, strength and durability. Before the use of steam-vessels became so common this timber was much sought after for spars. The older mills have been cutting for foreign trade, but as the country is being opened up there is a growing local and domestic trade. In May, 1888, the St.-Paul & Tacoma Lumber Company, of Tacoma, was incorporated, with a capital of $1,500,000. This company since their incorporation have been running full, employing 1,250 men, with an annual pay-roll of $750,000. Their products are not confined to lumber, but include coal, stone and lime. Their plant comprises some 80 acres in the city of Tacoma, consisting of saw-mills and dry-kilns, and over 150,000 acres of timber-land in the vicinity, and 5,000 acres of coal-land, with one of the most extensive mines in the State in operation. This company introduced much of the improvement in saw-mill machinery in the West, and was the first to dry lumber in the rough. This is for the convenience of the local trade, which last year consumed 80,000,000 feet. The St.-Paul & Tacoma Lumber Company received its name from the fact that several of its main officers and owners were well-known and successful business men of St. Paul, who foresaw a gigantic

LOGGING
ST.-PAUL & TACOMA LUMBER COMPANY.

TRANSPORTING LUMBER.
ST.-PAUL & TACOMA LUMBER COMPANY.

outcome of their Tacoma investment. Their Tacoma city property in itself has enhanced in value sufficiently already to make an immense return. The management of this company is most conservative, centered within itself, free from all complications of combines or trusts; and under its able management promises to become one of the largest lumber corporations in the United States, with ships of its own which may soon be found in all the lumber-consuming ports.

THE MILLS AT TACOMA.
ST.-PAUL & TACOMA LUMBER COMPANY.

Twenty-eight years ago, when the country surrounding Puget Sound was lined to the water's edge with the finest timber in the world, Capt. William Renton left his sea-faring occupation and made his first cut into the dense timber on the outer line of Kitsap County. This was the beginning from which has sprung the largest saw-mill in the world. The mill was set up at Port Blakeley, and is known as the Port-Blakeley Mill Company. The capital stock is $500,000. Owing to the age of the company it is easy to understand that much of the territory possessed has appreciated enormously, and that it is now one of the largest properties in the Northwest. The total cut last year was 63,554,000 feet, of which 35,000,000 were for foreign shipment. The plant consists of two double rotary saws, two resaws of 60 and 70 inches, two gang-saws, eleven trimmer-saws, two lath mills and five planers. This requires two engines of 575 horse-power each, and ten smaller ones, making an aggregate of 3,000 horse-power. The plant has a capacity of 300,000 feet a day, but on pressure 400,000 feet could be run in that time. The annual capacity is 85,000,000 to 90,000,000. Capt. Renton still retains the superintendency, and lives in the little village of Port Blakeley, which is almost exclusively inhabited by the 250 employees of the company and their families. A remarkable fact connected with this gigantic enterprise is that Capt. Renton has been nearly blind for over 15 years, and nevertheless has never ceased to be the actual active head of the whole concern, successfully caring for all its details, as well as being identified with several important enterprises of Seattle and vicinity, and also as the senior member of the great lumber firm of Renton, Holmes & Co., of San Francisco.

PORT-BLAKELEY MILLS.

PORT-BLAKELEY MILLS.

The creamy white cedar abounds along the Sound, and yields enormous quantities of the finest of shingles. Great white pines grow on the Cascade Range; and in the east are thousands of square miles of white and bull pines and tamaracks. The enormous forests of Washington abound in game — the great cougar, ten feet from nose to tail-tip, black and gray mountain-wolves, coyotes and wild-cats, broad-antlered elk, myriads of deer, and mountain-goats, beaver and otter, grouse and pheasants, geese and ducks.

Mining has already attained importance in Washington, which hopes to become the Pennsylvania of the Pacific Coast. Over 500,000 tons of bituminous coal and lignite are shipped from the rivers along Puget Sound, furnishing a large part of the supply for California and Oregon. The coal-product rose from 918,000 tons in 1889 to 1,350,000 in 1890. Gold has been mined for many years on both sides of the Cascade Range, and extracted from the placers of the Columbia and Snake Rivers. Since 1886 deposits have been found in the Okanogan region. The placers and gold-bearing ledges of Ellensburgh, Peshastan and Upper Clealum have been worked for years. Northwest of Colville are the productive gold-placers and quartz-lodes, silver and copper of Kettle River. The Colville Country has a score of mines of silver-bearing lead and silver chlorides. A railway is being built from Spokane Falls to Kettle Falls, whence the Columbia River can be navigated for 130 miles north, to the Canadian Pacific Railway. The Pacific Northwest is supplied with lime from the kilns on the San-Juan Islands. Greenish-gray sandstone comes from the Chuckanut quarries, on Bellingham Bay. There are granite quarries near Spokane Falls and Medical Lake, and in the Cascade Range and along Snake River.

INDIANS ON THEIR WAY TO HOP-PICKING.

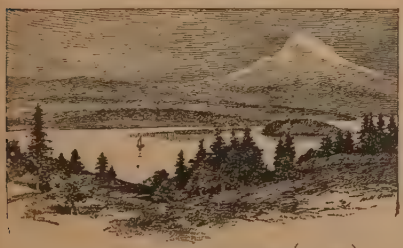
The deposits of iron ore in the mountains of Western Washington, notable for their extent and richness, are attracting great attention. This wealth has hitherto lain dormant, but preparations are now made for the reduction of the ore and the manufacture of steel on an extensive scale. This work has been undertaken by the Great Western Iron and Steel Company, with a paid-up capital of $1,000,000, and power to increase this to $5,000,000. The organizers of the company are Gen. R. A. Alger of Detroit, J. M. Sears of Boston, H. A. Noble of Chicago, J. S. Fassett of Elmira (N. Y.), Edward Blewett of Fremont (Neb.), Peter Kirk and W. W. Williams, late of Workington, England, but now of Kirkland; Bailey Gatzert, president of the Puget-Sound National Bank; Jacob Furth, cashier of the Puget-Sound National Bank; L. S. J. Hunt, proprietor of the Seattle *Post-Intelligencer;* A. A. Denny and C. T. Tyler of Seattle. The officers are L. S. J. Hunt, president; Peter Kirk, vice-president; W. W. Williams, secretary; and Jacob Furth, treasurer. Its works are at Kirkland, on Lake Washington, and include already a foundry, machine-shop, blacksmith-shop and pattern-shop. In November, 1890, a cargo of 2,270 tons of fire-brick was shipped from England, and this was followed a month later by a second cargo. For this plant 270 tons of machinery have been purchased. All the material for the manufacture of steel — iron ore, coal and flux — are to be obtained within a territory covered by a radius of 20 miles, with Kirkland as the centre. The Northern Pacific Railroad is now being built to Kirkland and to the iron mines, and the matter of transportation has thus been provided for. Steel is to be manufactured, both in ingots and in rails, and the company expects to supply in large measure the markets of the Pacific Coast, as well as those of Japan and China.

KIRKLAND: GREAT WESTERN IRON & STEEL COMPANY.

The Government has always had its seat at Olympia, and a recent vote for its permanent location resulted in 25,490 ballots for Olympia, 14,718 for North Yakima, and 12,833 for Ellensburgh. Western Washington has one third of the State's area, and more than three fifths of its population. The National Guard of Washington consists of a six-company regiment, in the west, and a six-company regiment and a troop of cavalry in the east. The Hospital for the Insane, at Steilacoom, has 300 inmates. Another asylum was erected in

1889–90 at Medical Lake. The Penitentiary, at Walla Walla, has 230 convicts, largely occupied in making brick. The School for Defective Youth overlooks the Columbia River, at Vancouver. The United-States military posts in Washington were in the old days occupied by small detachments under Scott, Grant, Sheridan, Howard, Wool, and other officers. The chief garrisons now are at Vancouver Barracks, with eight companies of artillery and infantry; Fort Walla Walla, with five troops of horse; and Fort Spokane, with six companies. One company is stationed near Port Townsend. Vancouver is the headquarters of the Military Department of the Columbia, covering Washington and Oregon, Alaska and most of Idaho. There are 11,000 Indians in the State, partly civilized, and dwelling on fertile reservations of 4,000,000 acres. The industrious and quiet dwellers on the Puyallup, Chehalis, Squaxon, Skokomish and Nisqually Reservations have received their lands in severalty. The Quinaielt Indians remain hunters and fishers. The Tulalip Agency controls 1,200 natives, farming on their allotments, and educated by Sisters of Charity. The Colville Agency superintends nine small tribes. The Yakima Agency has 1,400 on the reservation, besides 1,300 wandering off it. The Neah-Bay Agency guards 460 Makahs and Quillehutes. This reservation includes the stormy promontory of Cape Flattery, at the mouth of the Strait of Juan de Fuca, and the Indians are daring and expert in the pursuit of whales and seals.

SEATTLE, AND PUGET SOUND.



EAST SEATTLE AND MOUNT RAINIER (TACOMA).

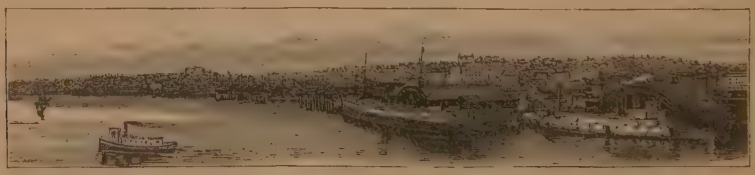
Education costs Washington $900,000 a year, distributed among 1,200 schools. The University of Washington was endowed by Congress with two townships of land, in 1854, and opened in 1862, at Seattle, where it has four buildings, on a pleasant tree-shaded campus of ten acres. It is a coeducational school, with eight instructors, and 13 classical and 28 scientific students, besides 176 others in normal, business, music, art and preparatory departments. Whitman College, at Walla Walla, dates from 1866. The State normal schools are at Ellensburgh and Cheney.

Chief Cities.—Seattle has a noble harbor, near the middle of Puget Sound, connected by a small canal with Lake Washington, a body of fresh water 20 miles long and from one to five miles broad, and deep enough for the largest ships. More than a thousand sea-going vessels visit this port every year, carrying away 600,000 tons of coal and many millions of dollars in other freights. From the six large steamship-docks, regular lines depart for San Francisco, Victoria, Sitka, and scores of ports on Puget Sound; and half a dozen railways diverge from Seattle to all parts of the Northwest. The residence quarter of the city stands on hills, with wonderful views of the Sound and the snowy Olympic Range, and the Cascade Range across Lake Washington on the east. The business quarter occupies 200 acres of low and level ground, fronting on the bay, with hundreds of acres more of the same land adjoining, available for business extensions. Seattle was founded in 1852, and named after a powerful Indian chief of this region.

SEATTLE: HIGH SCHOOL AND HOSPITAL.

SEATTLE: KING-COUNTY COURT-HOUSE.

It was besieged and well-nigh destroyed by the Indians, in 1856; and scourged by a $10,000,000 fire in 1889. Rising from its ruins, the city has fast developed into a commanding position among the ports of the Pacific Slope, and has every prospect of an almost unlimited extension in wealth, power and prosperity. By its own energy and resources, Seattle is building railways to Spokane Falls, to the Canadian Pacific Railway, and to Portland, thus securing the terminals of several great transcontinental lines. It has many large wholesale houses, doing a yearly business of many millions, extending from the Rocky Mountains and the Columbia to the Yukon River. The local manufactures exceed $10,000,000 a year in value, and are rapidly increasing in volume and variety, and employing larger forces of workmen and greater capitalization. With all this material prosperity at their command, the people have also laid broad and deep the foundations of a cultivated and intelligent community. The educational system includes admirable public and private schools and academies, culminating in the State University. The newspapers include four ably conducted dailies, and many other periodicals; and the churches are numerous, and in several cases very attractive. Seattle's trade is chiefly in coal, lumber, hops, fishery products, manufactured goods and general merchandise. Its population has increased in



SEATTLE, FROM HARBOR.

the past ten years from 4,000 to 46,000, and its assessable wealth from $2,500,000 to $35,000,000. No city has done better during that period of time.

As Seattle forges ahead to a leading place among the great seaports of the Pacific Coast, she is rapidly adorning herself with metropolitan beauties and luxuries. One of the most notable of these new works is the splendid Seattle Opera House, now in course of construction, on Second Street, which will be to the musical and dramatic taste of the Northwest what the Metropolitan Opera House is to New York, or the Grand Opera House to Paris. The massive and monumental effect of the exterior and the refined and delicate beauty of the interior and its connected lobbies, show the best study of Adler & Sullivan, the architects of the famous Auditorium Building, at Chicago. The new opera house is being erected by the Seattle Building Company, which was incorporated in 1890, with a capital of $300,000, and includes among its stockholders some of the foremost capitalists of the city, continually on the alert for opportunities, to advance the development of the Evergreen State and the Pacific Northwest. The unusual commercial advantages of Puget Sound are being availed of by several fast-growing communities, from where Olympia rests at its utmost head, down to where the salt-sea gales sweep across the cities of the Strait. Foreign and coastwise commerce, mining and manufactures, farming, lumbering find profit here.

Adler & Sullivan, Architects.

SEATTLE: OPERA HOUSE.

SEATTLE: HOTEL DENNY.

The magnificent new Hotel Denny, at Seattle, is one of the foremost of the great hostelries of the Pacific Coast, and occupies a very advantageous situation.

Tacoma is at the head of easy navigation on Puget Sound, near the Narrows, and has large lumber and smelting industries, and a warehouse and elevator capacity of 4,000,000 bushels of wheat. It stands on a bluff 200 feet high, overlooking Puget Sound and the Cascade Range, with an inspiring prospect of the distant Mount Tacoma. At the wharves below, great ships are laden with lumber and other products for China, Japan and Australia. In 1873 the Northern Pacific Railroad Company decided that the most advantageous western terminus of their road was the little village of Tacoma. The entire population then was only about 300 souls. Its buildings consisted of a saw-mill and the homes of the employees, over-shadowed by a great forest. At this time also the western terminus of the road was Bismarck, Dakota. Having decided upon this site, the railroad officials purchased there 3,000 acres, and 13,000 acres of additional and neighboring lands, and organized the Tacoma Land Company, which laid out the city at the head of the bay, and shortly afterward erected the Hotel Tacoma, costing $250,000. The capital stock of the company is $1,000,000. They originally owned the whole town, and have sold the land at constantly increasing prices. They have recently begun the erection of another hotel, and are building it on the bluff overlooking and about 400 feet above the level of the Bay of Tacoma. It is to be of stone and brick, and will be five stories high. The parlors, lobby and dining-rooms will be on the first floor. Besides these, the hotel will contain 250 sleeping-rooms. The growth of Tacoma from a village with a population of 300 in 1873 to a well developed city of nearly 40,000 in 1891 is largely due to the Tacoma Land Company, which is now building this hotel at a cost of three quarters of a million dollars.

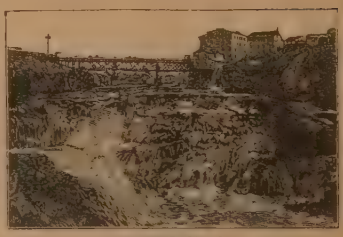
SEATTLE: BAILEY BUILDING.

TACOMA: NEW HOTEL.

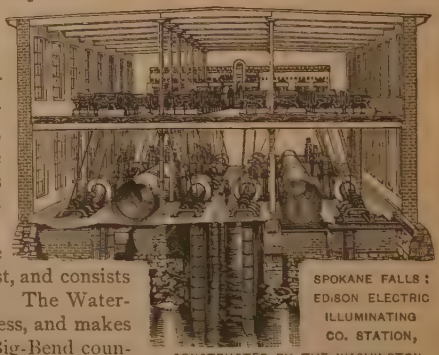
Spokane Falls received its first settler in 1878, and has risen from a village of 2,200 people in 1883 to a city of 20,000 in 1890, with electric lights and water-works, street-cars and telephones, morning and evening newspapers, messenger-boys, great hotels, and wholesale houses. Several railways centre at Spokane, from the Cœur-d'Alêne and Colville mines and the rich farming countries on the South. The Washington Water-Power Company, incorporated in 1889, controls the bulk of the water power at Spokane Falls, and owns 20 acres in the heart of the city, together with 20,000 horse-power at the lowest stage of water. The power is considered by expert hydraulic engineers one of the first of the great water-powers. It is entirely free from ice in the

TACOMA: CHAMBER OF COMMERCE.

winter. The water is very clear and free from grit, and the formation of the river-bed is basaltic rock, making it easy for improvements. The company has completed extensive improvements in the river-bed, consisting of a dam 200 feet long, with masonry head-gates conducting the water several hundred feet through a pair of seven-foot iron penstocks to the new water-power station of the Edison Electric Illuminating Company. These joint improvements are among the best in the United States, and far excel anything on the Pacific Coast. The water-power company supplies power to a number of concerns, the most important of which is the Edison Electric Illuminating Company's station, whose plant (an interior view of which is shown) is the model water-power plant of the country. In it the power is broken up into small units, for the purpose of more careful regulation. Everything is put in in iron or granite, and 2,700 horse-power is delivered on the machinery-floor. The plant of the Edison Company is the largest individual lighting plant on the coast, and consists of 600 arcs and 7,500 incandescent lamps. The Water-Power Company is also in the milling business, and makes flour from the wheat of the Palouse and Big-Bend countries. There are 150 employees of the joint companies.



SPOKANE FALLS.



SPOKANE FALLS: EDISON ELECTRIC ILLUMINATING CO. STATION, CONSTRUCTED BY THE WASHINGTON WATER-POWER COMPANY.

Finance finds its chief and oldest banking-house at Seattle, in Dexter Horton & Co., now closely allied with Ladd & Tilton, of Portland (Oregon), W. S. Ladd being its president.

The Merchants' National Bank of Tacoma is one of the pioneer and largest banks of Washington. It was organized May 14, 1884, to succeed the Bank of New Tacoma, with a paid-in capital of $50,000. This was increased to $100,000 in May, 1888, and again to $250,000 in August, 1889. It now has a capital of $250,000, with a surplus and undivided profits of nearly $100,000. The deposits of this bank have exceeded $1,000,000; and it is known throughout the State, and, indeed, the Pacific Coast, as a solid and conservative institution. The total resources, according to a late statement, were $1,210,388. Their new building is six stories high, and is of a very simple but elegant style of architecture. The president is Walter J. Thompson, a well-known business man; and the cashier is Samuel Collyer, the son of the Rev. Robert Collyer, the famous blacksmith preacher. This is the pioneer bank of Tacoma, and one of the largest in the State.

TACOMA: MERCHANTS' NATIONAL BANK.

Railroads. — The Northern Pacific, from Idaho and the East, throws off branches to Coulee City and Lewiston, and then crosses the Columbia, and ascends the Yakima Valley, crossing the Cascade Range by a two-mile tunnel at Stampede Pass. It reaches deep water at Tacoma and Seattle, Ocosta and Willapa Bay. Another line follows Puget Sound, and another runs from Spokane Falls far up the Columbia Valley. The Union Pacific enters Washington from the south. The Great Northern Railway is building rapidly from Montana to Puget Sound, 750 miles, and will give passage from New York to Seattle in four days.

HISTORY.

In her history and characteristics West Virginia is of the West rather than of the East, and her early annals are full of the Indian wars and massacres, which equally characterized other States of the interior. One of the first land-owners was George Washington, who, when working as a public surveyor, in 1750, entered and patented for himself 32,000 acres in the Ohio and Great Kanawha Valleys. The first permanent settlers came from Pittsburgh, in 1704, and located near Philippi. Separated from the rest of Virginia by the formidable barrier of the Alleghany Mountains, the interests of the western counties grew apart from those of the tide-water region, as to taxation, representation, the slavery question and internal improvements. Their commerce was turned down the Ohio, and their sympathies grew into harmony with the great States of the Middle West. The entire region was unfitted for the slave-plantation system of Tide-water Virginia, because no great farming estates could be established on these Tyrolese hills. Even now, but 4 per cent. of its people are colored, while over 40 per cent. of Virginia's people are of African descent. Yet here fell the most perilous blow of the Abolitionists' war against slavery. October 16, 1859, John Brown and a force of 22 armed Abolitionists captured Harper's Ferry and the arsenal, intending to raise the negroes of the valley in revolt, and occupy the Blue Ridge as a base of hostilities against the slave-holders. But the negroes failed to rise, and Brown was beleaguered by Virginian militia in the engine-house, which was stormed by United-States marines on the 18th. Ten of the insurgents were killed, seven (including Brown) were hung by the State authorities, and five escaped northward.

The mountaineers of Virginia fiercely fought the Secession sentiment of the tide-water counties, and when the State resolved to leave the Union, they refused to join the

STATISTICS.

Settled near	Phillipi.
Settled in	1704
Founded by	Pennsylvanians.
Became a State,	1863
Population in 1870,	442,014
In 1880,	618,457
White,	592,537
Colored,	25,920
American-born,	600,192
Foreign-born,	18,265
Males,	314,495
Females,	303,962
In 1890 (U. S. Census),	762,794
Population to the square mile,	25.1
Voting Population (1880),	139,161
Vote for Harrison (1888),	78,171
Vote for Cleveland (1888),	78,677
Net Public Debt,	None.
Assessed Valuation of Property (1890),	$170,000,000
Area (square miles),	24,780
U.-S. Representatives,	4
Militia (Disciplined),	848
Counties,	54
Post-offices,	1,670
Railroads (miles),	1,328
Vessels,	109
Tonnage,	11,611
Manufactures (yearly),	$22,867,126
Operatives,	14,351
Yearly Wages,	$4,313,965
Farm Land (in acres),	10,225,341
Farm-Land Values,	$133,147,175
Farm Products (yearly)	$19,360,049
Public Schools, Average Daily Attendance,	119,990
Newspapers,	152
Latitude,	37°5′ to 40°37′ N.
Longitude,	77°4′ to 82°40′ W.
Temperature,	—10° to 97°
Mean Temperature (Romney),	52°

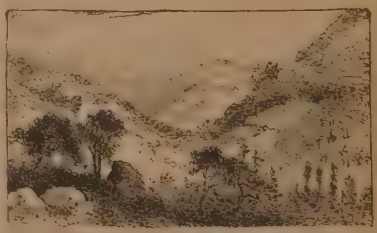
TEN CHIEF CITIES AND THEIR POPULATIONS. (Census of 1890.)

Wheeling,	34,522
Huntington,	10,108
Parkersburg,	8,408
Martinsburg,	7,226
Charleston,	6,742
Grafton,	3,159
Clarksburg,	3,008
Benwood,	2,934
Moundsville,	2,688
Hinton,	2,570

CHEAT RIVER: THE HEART OF THE ALLEGHANIES.

movement. April 22, 1861, the Clarksburg convention denounced the ordinance of secession; in May, 25 counties sent Unionist delegates to Wheeling; in June, 40 counties at Wheeling reorganized the State of Virginia; in October, the people voted to organize the new State of Kanawha; and in 1863 West Virginia became a State. At the outbreak of the late civil war, Confederate armies entered West Virginia and began the destruction of the Baltimore & Ohio Railroad. Gen. McClellan advanced against the invaders, with several Ohio regiments, and fought a series of brilliant engagements, at Buckhannon, Rich Mountain and Carrick's Ford, the result of which was the retreat of the Confederates. In September, 1862, Gen. Miles was beleaguered in Harper's Ferry, with 12,000 Federal troops, and forced to surrender, after a bombardment from Loudon and Maryland Heights. The State was the scene of many fierce forays on both sides, and many a desperate fight was waged among its mountain-passes. West Virginia sent 36,530 soldiers into the Federal army, and 7,000 into the Confederate columns. Since the close of the civil war the young State has devoted herself to building railways, and developing her vast natural resources in lumber and minerals; and her population has increased with great rapidity. Of her people 93 per cent. are native whites, a ratio unequalled elsewhere in the Union.

West Virginia has often been called THE SWITZERLAND OF AMERICA, and THE MOUNTAIN STATE, on account of her high mountains and rugged hills, dashing rivers, and pure sweet air. She is also called THE PAN-HANDLE STATE, from one of her chief geographical features.

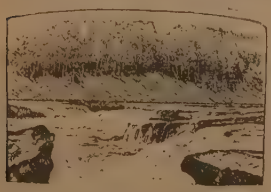


CRANBERRY GRADE: ON THE BALTIMORE & OHIO R. R.

The Arms of West Virginia bear an ivy-clad rock (the emblem of stability), on which appears "June 20, 1863" (the date of the State's foundation), supported by a farmer-hunter, with his plough and axe, and a miner, with his pick-axe, oil-barrels, and lumps of mineral. Below, two hunters' rifles are crossed, under a liberty-cap, showing that freedom was won and will be maintained by arms. The motto is: MONTANI SEMPER LIBERI ("Mountaineers are always freemen").

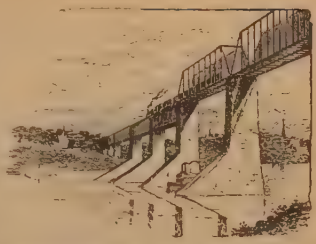
The Governors have been: Arthur J. Boreman, 1863–9; William E. Stevenson, 1869–71; John J. Jacob, 1871–7; Henry M. Matthews, 1878–82; Jacob B. Jackson, 1882–86; E. Willis Wilson, 1886–90; and A. B. Fleming, 1890–4.

Descriptive.— West Virginia is a land of great hills, falling gradually from the Alleghany Mountains, 2,500 feet high, which in part form the eastern frontier, to the Ohio River. This westward decline is broken by the continuous ridge named at various points Flat Top, Cotton Hill, Gauley, Greenbrier, Birch and Rich Mountains, forming a prolongation of the Cumberland Range, and lying from 25 to 40 miles west of the Alleghanies. Along the east and south are the plateaus bordering on Virginia, cut deep by the gorges of many streams, and falling away to the Ohio, where the country has a gentler aspect, and is but 800 feet above the sea. The Pan Handle is a curious strip of West Virginia running northward for 60 miles, between the Ohio River and Pennsylvania, and at some points only six miles wide. The North and South Branches of the Potomac rise in the mountains, traversing long and narrow valleys, and uniting to form the Potomac,



KANAWHA FALLS.

for 100 miles the northeastern border of the State; and in the north the West Fork and Tygart's-Valley River form the Monongahela, into which the Cheat River flows, down one of the grandest valleys in the Atlantic States. The Great Kanawha (formed by the junction of Gauley and New Rivers) receives the Coal, Greenbrier, Gauley and Elk Rivers, and empties into the Ohio. The Government has spent large amounts on locks and dams, to improve navigation here. This mountain-born stream is 450 miles long, and navigable to Kanawha Falls, 100 miles. The Ohio River forms the western boundary for 300 miles, and is continually traversed by fleets of steamboats, bearing passengers, freight and mails. The Little Kanawha is navigable by steamboats, on slackwater navigation, from Parkersburg to the oil-regions of Burning Springs. The Guyandotte, Big Sandy, Elk and other streams are much used by flat-boats and lumber-rafts.


PARKERSBURG: BALTIMORE & OHIO BRIDGE.

The Climate is moderate and healthy, and free from extremes of heat and cold, and from malaria or excessive moisture; and the clear highland air is favorable for consumptives. The rich blue-grass areas of the Greenbrier Valley and the glens of the southeast and the upland glades afford valuable farming regions; and the Pan Handle is a rich agricultural land, blessed with abundant rains, and resembling the adjacent counties of Ohio.

The Farms produce yearly about 16,000,000 bushels of corn, 3,000,000 of wheat, and 3,000,000 of oats; and employ nearly two thirds of the people. The chief rural avocation is the raising of horses, cattle and sheep. The Pan-Handle counties have large flocks of sheep, favored by the limestone soil, abundant water, and genial climate. There are 1,600,000 head of live-stock. West Virginia ships yearly 300,000 pounds of ginseng, a valuable medicinal root, dug in September in her mountain coves, and chiefly exported to China, where it is held in great esteem.

GREENBRIER WHITE SULPHUR SPRINGS.

The forests are of great extent and value, and three fourths of the State still remains under the shadow of its oaks, black walnuts, poplars, chestnuts, wild cherry trees, hickories, sugar-maples, maples, white pines and other valuable woods. Immense lumbering operations are carried on, and tanneries and wood-pulp mills have been erected in many localities. West Virginia probably has a larger area of standing timber, valuable for cabinet-work and building, than any other State; and the streams are well adapted for logging.

Springs.—The Greenbrier White Sulphur Springs flow in a lovely glen amid the Alleghany Mountains, 2,000 feet above the sea, and for over a century have been one of the favorite summer-resorts of America. In remoter days this was a fountain of health for the Shawnee Indians, and from 1770 to 1820 the white mountaineers resorted hither, seeking strength and recreation. Between 1820 and 1860, "the Old White" was the cherished resort for the wealthy rice and cotton planters of the Gulf States and the Carolinas, and the country gentlemen of Virginia and Maryland, coming hither in their cavalcades of ancient private coaches, with retinues of dusky slaves. Clay and Calhoun, Scott and Tyler, Fillmore and Webster frequented this "little oasis in a desert of green and blue," and drank its colorless and odorous waters, curative of rheumatism, dyspepsia,

BERKELEY SPRINGS.

NEW RIVER: SHOO-FLY TUNNEL.

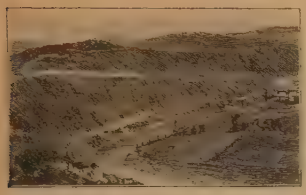
alcoholism, and many other maladies. The Berkeley Springs are the oldest pleasure-resort in the South, and once belonged to the vast estate of Lord Fairfax, and were frequented by George Washington, who owned land and buildings in the vicinity. In the colonial days the Virginian gentry came hither to dwell in log-huts and enjoy the baths, and to hunt and fish and race their horses. The Gentlemen's, Ladies' and Lord Fairfax's Springs pour out 1,200 gallons of warm calcic water a minute, and there are a variety of baths and swimming-pools. Red Sulphur Springs, the favorite resort of President Monroe and Chief-Justice Taney, with waters like those of Eaux Bonnes, in the Pyrenees; Salt Sulphur Springs, near Alderson, with their added attractions of iodine and iron waters; Sweet Chalybeate, the Old Sweet, and Blue Sulphur Springs, in the same section of the State; the Shannondale saline chalybeate springs, near Charleston; the fashionable Capon Springs, on North Mountain; and the Parkersburg Mineral Wells, are all well-known. The scenery of this region includes the emerald valley of Moorfield, with its high-towered sandstone rocks; the needle-like pinnacles over the South-Branch glens; the cloud-touched spires of Cathedral Rock; the mysterious tumulus of Moundsville, looking down on the fair Ohio meadows; Hawk's Nest, a famous view-point on the New River; the glens of Alderson, on the Greenbrier; the beautiful Kanawha and New-River Falls; the craggy cañon of New River, enclosing the white foaming stream within its lofty ramparts; the beauties of the lower Shenandoah Valley, now happily recovered from the ravages of war; and the magnificent scenery around Harper's Ferry, where the united Potomac and Shenandoah Rivers force the passage of the Blue Ridge, between the historic Maryland Heights and Loudon Heights.

WHEELING: POST-OFFICE AND CUSTOM-HOUSE.

WHEELING AND THE OHIO RIVER.

Minerals.—The coal-fields of West Virginia cover 16,000 square miles, with thick and easily accessible seams, especially near Fairmont and Clarksburg, and in the Pocahontas and Elkhorn Districts; and are fully exposed along the Gauley, New and Coal Rivers, and on the Great Kanawha, above Charleston. The coal-field exceeds in area that of Great Britain, and reaches 48 counties. Most of the coal is bituminous, with some pure cannel. The mines at Clarksburg yield a capital gas-coal, which is sent to many cities. West Virginia is now the fourth State in producing coal, and sends out yearly 7,000,000 tons. It has become the second State in producing coke, sending out a million tons a year, the quality being excellent, and the coke giving off an intense heat, with but little ash. The petroleum belt is from one to two miles wide, and runs from the Little Kanawha to the Ohio, through Wirt, Ritchie, Wood and Pleasants Counties, with its chief refining and shipping points at

HARPER'S FERRY AND JOHN BROWN'S FORT.



WHEELING: McCULLOCH'S LEAP.

and near Parkersburg. There are also large developments of petroleum in the northern counties, Monongalia, Hancock and others. The newly developed Belmont, Eureka and Mannington districts have been large oil-producers, and millions of dollars have been invested there in boring for the treasures of the sand-rock. Natural gas is employed in many of the manufactories at Wheeling and elsewhere, and the supply is very copious. Iron-ore is found in the coal-hills, ready for the furnaces. The best is around Laurel Hill and at Beaver-Lick Mountain, where it yields 50 to 60 per cent. of pure metal. The south also is rich in this mineral. Braxton and Preston Counties have valuable seams now in use; but the enormous beds of ore in the State are as yet slightly developed. Salt is a valuable product of the Kanawha Valley, which is lined with salines for many miles above Charleston. Mason and Braxton Counties also manufacture large quantities. In a single year 320,000 barrels of salt have been sent hence; but since 1880 the product has fallen off, by reason of competition from other States. Three fourths of the bromine of America is made by a company with its headquarters at Clifton. Sandstone, limestone, buhrstone, marble, alum, copper, flagstone and other minerals are found in the State. The well-known variegated marble pillars in the old Hall of Representatives, at Washington, were quarried in the Potomac River.

WHEELING: BRIDGE ACROSS THE OHIO.

NEW-RIVER CANON.

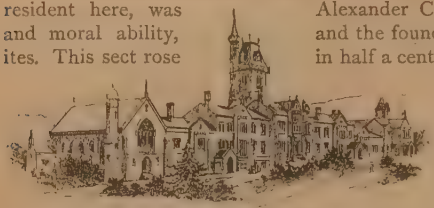
NEW-RIVER FALLS.

Government.—The governor and executive officers are elected for four years. The legislature, of 26 four years' senators and 65 two-years' delegates, meets in January of every odd year, for a 45-days' session. The Supreme Court has four justices, elected for twelve years. There are 14 circuit-judges, elected for eight years. The Penitentiary at Moundsville has 110 inmates; the Hospitals for the Insane, at Weston and Spencer, 550; and the Institute for the Deaf, Dumb and Blind, at Romney. These institutions are managed with wisdom and efficiency.

Education is administered by a liberal system, with separate free schools for white and colored children. The State free normal schools at Huntington, Fairmont, West Liberty, Glenville, Shepherdstown, and Concord are very popular. Over $1,200,000 a year is spent on the public schools by the State, in addition to the local district taxation. Storer College, founded in 1867 at Harper's Ferry, by a philanthropic New-Englander, is a normal and industrial school for colored people. West-Virginia University grew out of the United-States Agricultural College land-grant of 1862, and was opened in 1867, with free tuition for young men of the State. Its campus of 18 acres overlooks the Monongahela River, near Morgantown. The State Agricultural Experiment Station, and a Law School (with three professors and 19 students) are connected with the University. Bethany College, away up in the Pan Handle, 16 miles north of Wheeling, is a co-educational Christian school, opened

KANAWHA RIVER; HAWK'S NEST.

in 1841, and having seven professors and 70 students, with 700 graduates. It occupies a line of handsome collegiate Gothic buildings. The first president, and for many years a resident here, was Alexander Campbell, a man of remarkable intellectual and moral ability, and the founder of the Disciples of Christ, or Campbellites. This sect rose in half a century to a membership of 500,000.


BETHANY: BETHANY COLLEGE.

Chief Cities.—Wheeling, the metropolis of West Virginia, stretches along the Ohio bottom-lands, under the shadow of bold bluffs, and in a country rich in tobacco and grain. It is farther north than Philadelphia. Among its many manufactures, those of iron and steel take the lead, employing 2,500 men, and gaining for Wheeling the title of "The Nail City." Some of the finest pottery and glassware manufactured in this country is made here. Several railways converge here, and the Ohio River furnishes a valuable water-route, with Pittsburgh 95 miles above (60 by railroad); Cincinnati, 365 miles below, and other ports. Charleston, the capital, lies in the Kanawha Valley, and produces vast quantities of salt from its springs. Parkersburg, at the confluence of the Ohio and the Little Kanawha, is the outlet of the petroleum region, and has refineries and manufactories. Martinsburg, in the Valley of Virginia, has large railroad repair-shops. Harper's Ferry was founded after 1732, by Robert Harper, an English immigrant; and in 1794 the United-States arsenal began its operations here.

MORGANTOWN: WEST-VIRGINIA UNIVERSITY.

Railroads. The Baltimore & Ohio Railroad enters from Maryland, on the east, and crosses the northern part of the State, at Grafton forking into the Parkersburg Division, and the line running northwest down Tygart's Valley to the upper Ohio and Chicago. The Chesapeake & Ohio Railroad crosses the southern counties, amid beautiful scenery of mountains and valleys, on its way from Cincinnati to Norfolk. The Ohio-River Railroad extends along the river for 215 miles, from Wheeling to Parkersburg, Point Pleasant and Huntington, with branches leading up the valleys. The West-Virginia Central runs from Cumberland to Elkins, north and west, 113 miles. Several narrow-gauge lines are operated in the mountain counties. Railroad extension has gone forward rapidly since 1885, resulting in the development of rich lumber and mining districts.

WHEELING: CITY BUILDINGS.

The Manufactures are mainly of iron and steel, lumber and leather, glass and flour, and employ 15,000 persons, with a yearly product of $23,000,000. Glass has been made at Wheeling since 1820, and 1,500 men are now engaged there in the manufacture of pressed table-glass and bottles.

The Wheeling potteries make vast quantities of granite and decorated ware, china and queensware. Wheeling also manufactures many millions of stogies, a peculiar variety of long and slender Kentucky-leaf cigars, very cheap but not very bad, smoked all over the West and Southwest, and in their humbler grades sold for a cent apiece. Their name is said to be an abbreviation of Conestoga, from the rough-and-ready Conestoga wagons which rolled from Pennsylvania westward long ago.

WHEELING:
MOUNT DE CHANTAL FEMALE ACADEMY.

HISTORY.

All over Wisconsin, particularly along the shores of the lakes, great and small, upon her river-benches, and crowning the summits of her rugged hill-tops, are the curious earth-works which are ascribed to the Mound-builders. As to their age, there is a wide difference of opinion among scientific observers. As to who the Mound-builders were, ethnologists are not agreed. Thus there is abundant room for individual speculation. It is, however, the opinion of many of the most careful experts, and the theory accepted by the United-States Ethnological Bureau, that the mounds are not the product of a race of people now extinct, as has been so long believed, but that they were built by the ancestors of existing tribes of Indians—in Wisconsin, the Dakotas, of whom the present Winnebagoes are the lineal descendants; and that while many of the mounds, particularly those in the forms of animals, are doubtless of great antiquity, possibly several thousands of years of age, others are of comparatively recent construction,—probably not more than a generation or two earlier than the arrival of the first French explorers.

Nearly 2,000 implements and armaments of hardened copper, chiefly knives, axes, spear- and arrow-heads, drills, awls, beads and amulets, have been picked up in Wisconsin, chiefly in the lake-shore counties and on the shores of inland lakes, and sometimes in ancient mounds. Some maintain that these articles were fashioned ages ago, by a peculiar race of people, and that the art of hardening copper has been lost to the world; while others there are who believe them but little older than the French occupation,—and some have been so bold as to claim that the first Frenchmen who visited Lake Superior taught to the Indians the art of working the metal, just as other Frenchmen are known to have initiated the natives in the art of lead-working. We only know that nowhere else in

STATISTICS.

Settled at	La Pointe.
Settled in	1665
Founded by	Frenchmen.
Became a State,	1848
Population in 1860,	775,881
In 1870,	1,054,670
In 1880,	1,315,497
White,	1,309,618
Colored,	51,879
American-born,	910,072
Foreign-born,	405,425
Males,	680,069
Females,	635,428
In 1890 (U. S. Census),	1,686,880
Population to the square mile,	24.2
Voting Population,	340,482
Vote for Harrison (1888),	176,553
Vote for Cleveland (1888),	155,232
Net State Debt,	None.
Assessed Valuation of Property (1890),	$593,000,000
Area (square miles),	56,040
U.-S. Representatives (in 1893),	10
Militia (Disciplined),	2,659
Counties,	68
Post-offices,	1,706
Railroads (miles),	5,584
Vessels,	424
Tonnage,	91,043
Manufactures (yearly),	$128,245,480
Operatives,	57,109
Yearly Wages,	$18,814,917
Farm Land (in acres),	15,353,118
Farm-Land Values,	$357,700,507
Farm Products (yearly),	$72,779,496
Public Schools, Average Daily Attendance,	186,891
Newspapers,	529
Latitude,	42°27′ to 47° N.
Longitude,	86°53′ to 92°53′ W.
Temperature,	—42° — 101°
Mean Temperature (Madison),	45°

TEN CHIEF CITIES AND THEIR POPULATIONS. (CENSUS OF 1890.)

Milwaukee,	204,468
La Crosse,	25,090
Oshkosh,	22,836
Racine,	21,014
Eau Claire,	17,415
Sheboygan,	16,359
Madison,	13,426
Fond-du-Lac,	12,024
Superior,	11,983
Appleton,	11,869

the United States have so many prehistoric copper implements been found,— many of them identical in shape with those found in Ireland and Switzerland; and in no other State are there so many interesting forms of prehistoric mounds.

In 1634 Frontenac, then governor of New France, sent Jean Nicolet, a *coureur du bois*, into the then mysterious region of the Upper Lakes, to make treaties with the Northwestern tribes, and induce them to trade with the French of Lower Canada. He ascended the Fox River as far as the present Berlin, then proceeded southward to Illinois, and reached Lake Michigan on his way home, probably by the Chicago portage. In 1658-9, Radisson and Groseilliers, two French traders, visited Green Bay and went up Fox River; and (it is thought) descended the Wisconsin, and saw the Mississippi. In 1661 they were back again in Wisconsin, and built a stockade near where Ashland now is. In 1665, Father Allouez established a mission at La Pointe, on Chequamegon Bay, near Radisson's fort, on the main land. It was not until the present century that the La-Pointe mission was removed to Madelaine Island.

DALLES OF THE WISCONSIN.

The Jesuit mission of St. Francis Xavier arose at Depere, at the first rapids in the Fox River, two years later. The Green Bay (or *Bay des Puans*) of the 17th century was not on the present site of that city, but at Depere. The place became an important headquarters for the fur-trade, although it was 1750 before permanent settlement was established — the Langlades being the pioneers. Joliet and Marquette passed through here, in 1673, on their way up the Fox and down the Wisconsin, to explore the Upper Mississippi. The following year, Marquette coasted Lake Michigan, from Green Bay by Milwaukee to the Chicago portage. A similar trip was made by La Salle, in 1679; and it was among the islands of Green Bay that his vessel, the *Griffin*, was lost in a storm. The following year, Du Luth, a famous French trader, voyaged from Lake Superior to the Mississippi River, by ascending the Bois Brulé and descending the St. Croix. Father Hennepin had, the same year, ascended the Mississippi as far as the site of Minneapolis, and on falling in with Du Luth, returned with him, by the Wisconsin and Fox Rivers, to Green Bay. In 1685 Nicholas Perrot, who had been at Green Bay as early as 1669, was appointed French "Commandant of the West," and built a stockade fort for the protection of his fur-trade, on the Mississippi, near Trempealeau. In 1689 and later, Perrot established forts on Lake Pepin and at the mouth of the Wisconsin River, at Prairie du Chien. In 1692, Le Sueur built a stockade at La Pointe, and further fortified the Mississippi. Wisconsin is situated at the head of the chain of Great Lakes; is touched on the east by Lake Michigan, on the north by Lake Superior, and on the west by the Mississippi; and is drained by interlacing rivers which so closely approach each other that the canoe voyager can with ease pass from one great water system to the other,— can enter the continent at the Gulf of St. Lawrence and by narrow portages in central Wisconsin emerge into the south-flowing Mississippi. From Lake Michigan, the Fox-Wisconsin river system was the most popular highway to the great river; into Lake Superior there flow numerous streams from whose sources led short portage-trails over to the headwaters of feeders of the Mississippi. Thus the geographical character of Wisconsin became, very early in the history of New France, an important factor. The Jesuit missions on Lake Superior and Lake Michigan soon played a prominent part in the history of American exploration; and 2½ centuries ago, when the Puritan colonies on Massachusetts Bay were yet in their infancy, and long before the intervening country had been visited, the general features of the map of Wisconsin and the route thither were familiar to the rulers of Quebec.

Wisconsin was notable, too, in those early days, as a hiding-place for tribes of Algonquins, who had been driven beyond Lake Michigan, before the resistless onslaught of the Iroquois, who, however, often ventured into these forest fastnesses and massacred the

crouching fugitives. The country was, for a century and a half, the happy hunting-ground for the easy-going French—licensed traders and *coureurs du bois* as well—and in the French-and-Indian war was a favorite recruiting field for those disciplined bands of redskins who periodically broke forth upon the borders, filling the life of American pioneers with scenes of horror. It was Langlade, a Wisconsin leader of these savage allies, who caught Braddock in his slaughter-pen, and whose swarthy fellows bore away to the Michigan woods a goodly share of the scalps and spoils won on that fateful day.

OSHKOSH : FIRST WARD SCHOOL.

When New France fell, in 1763, Wisconsin—now made by George III. a part of the Province of Quebec—remained essentially French. The flag of England waved for a time over the rude stockade at Green Bay, but the woods were filled with French and Indians, in all grades of blood relationship, who had transferred their allegiance to the conqueror. French and half-bloods, throughout the War of the Revolution, wore the scarlet uniforms of His Majesty's army.

Although the Northwest was given to the United States in the treaty of 1783, the English were practically in military possession of Wisconsin until the close of the war of 1812–15. It was nominally in the Northwest Territory until 1800; then a part of Indiana Territory until 1809. Illinois Territory included Wisconsin until 1818, when Michigan Territory assumed control. When Wisconsin Territory came into being, in 1836, it included also Iowa, Minnesota and Dakota east of the Missouri and White-Earth Rivers. Parts of this domain were ceded to Iowa, in 1838, and to Minnesota in 1849. Early in the present century Congress excluded British traders; and erected Fort Howard, opposite the French and Indian village of Green Bay, and Fort Crawford, at the fur-trading post of Prairie du Chien.

Up to this time the French and half-bloods still held Wisconsin woods and streams, and the fur-trade was the chief industry. Little by little, this French predominance was undermined, at first by the advent of Americans into the lead mines (1827), and then by agricultural settlers. The Black-Hawk war (1832), wherein the Sacs and Foxes were cowed, was an important factor in the opening of the region to public view. American settlement and development along American lines, now began in earnest. The fur-trade ceased to be of importance, the non-progressive French element subsided into insignificance, immigrants from the East were attracted by cheap lands on easy terms, and thenceforth Wisconsin was an American territory, which rapidly grew into a powerful and patriotic State. Racine was founded in 1834; Sheboygan, in 1835; Milwaukee, Janesville and Oshkosh in 1836; Madison, in 1837; Whitewater, in 1839; La Crosse, in 1840; Stevens Point, in 1843; and Appleton, in 1848.

OCONOMOWOC : PARISH CHURCH.

In modern days, the State has advanced uninterruptedly in peaceful and profitable industries, growing into a great and powerful commonwealth. The late civil war drew from the farms and cities of Wisconsin an army of over 90,000 men, for the defense of the Republic. Nearly one third of the population is of European birth, including 250,000 from Germany and Scandinavia, and 80,000 from the British Isles, with colonies of Belgians and Swiss. Three fourths of the people are of foreign birth or parentage, including 600,000 of German extraction, and over 100,000 of Scandinavian origin. The German type will predominate here, making a fair and stalwart race. Although possessing this unusual preponderance of the European element, Wisconsin does not differ ethically from her sister States of the Northwest, because the immigrants are in most ways thoroughly Americanized, making good citizens, intelligent voters, and patriotic soldiers.

WEST SUPERIOR: DULUTH ELEVATOR CO.

The Menomonee Indians, 1,442 strong, part Catholic and part Pagan, occupy a section of the great northern pine forest, and are an honest and peaceful people, without over-stringency of morals. There are four bands of Chippewa Indians, at Lac du Flambeau, Lac Court d'Oreilles, Bad River and Red Cliff, numbering 2,628 persons. Wisconsin has also about 1,400 Winnebagoes and Prairie Pottawatomies, nominally dwelling on homesteads of 40 acres per adult, in severalty, but practically roaming free. The Stockbridge Indians are the remnant of the ancient Housatonic tribe, who dwelt in the beautiful Berkshire Hills of Massachusetts, and were converted to Christianity by Jonathan Edwards and other Puritan divines. They fought bravely for America in the Revolution, and then, 400 strong, moved away to Oneida County (N. Y.). They were deported, 34 years later, to the pine-woods of Wisconsin. The Stockbridges still keep up their church, with two services weekly, reading over and over a volume of old sermons, in default of a pastor. The Oneidas, a remnant of the Six Nations of New York, number 2,000, on a reservation of 65,540 acres, near Green Bay. They have many good farms and buildings, and a stone church, paid for by their own money. Outside the reservation are many Stockbridges (chiefly in Calumet County), who are citizens, and engaged for the most part in farming.

DALLES OF THE WISCONSIN.

The Name of Wisconsin is derived from its chief river. The Indians themselves are at a loss to explain it. Some call it a Chippewa phrase, *Wees-kon-san*, "the gathering of the waters;" others say that it means "westward flowing," from the French *ouest* (west), and the Algonquin *ing*, meaning at or by; and the late Very Rev. Edward Jacker, a thorough Indian philologist, believed it to be from the Chippewa, *Wishkosisibi*, "Grass River," or "Prairie River."

In early lead-mining days, the miners from Illinois and farther south returned home every winter, and came back to the diggings in the spring, thus imitating the migrations of the fish popularly called the "sucker," in the Rock, Illinois, and other south-flowing rivers of the region. For this reason, the south winterers were called "Suckers" and Illinois became "The Sucker State." On the other hand, miners from the Eastern States were unable to return home every winter, and at first lived in rude dug-outs, burrowing after the fashion of the badger (*Taxidea Americana*). These men were the first permanent settlers in the mines north of the Illinois line, and Wisconsin thus became dubbed THE BADGER STATE. Contrary to general belief, the badger itself is not frequently found in Wisconsin.

DEVIL'S LAKE.

The Arms of Wisconsin bear a shield, on which is displayed the shield of the United-States arms, under a scroll bearing the motto *E Pluribus Unum*. In the quarterings are an anchor on the right, a mechanic's arm holding a hammer on the left, in the lower quartering a spade and pickaxe crossed, and a breaking-plow above. The supporters are a sailor and a miner, with an open cornucopia and a pile of pig-lead below. The crest is a beaver standing on a roll. The motto is: FORWARD.

The Governors of Wisconsin have been: Territorial: Henry Dodge, 1836–41; James D. Doty, 1841–4; Nathaniel P. Tallmage, 1844–5; Henry Dodge, 1845–7. *State:* Nelson Dewey, 1847–52; Leonard J. Farwell, 1852–4; Wm. A. Barstow, 1854–6; Arthur McArthur, 1856; Coles Bashford, 1856–8;

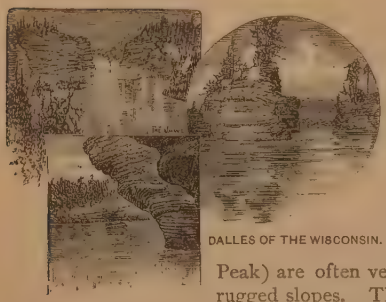
Alex. W. Randall, 1858-62; Louis P. Harvey, 1862; Edward Salomon, 1862-4; James T. Lewis, 1864-6; Lucius Fairchild, 1866-72; C. C. Washburn, 1872-4; Wm. R. Taylor, 1874-6; Harrison Ludington, 1876-8; Wm. E. Smith, 1878-82; Jeremiah R. Rusk, 1882-9; Wm. D. Hoard, 1889-91; and George W. Peck, 1891-3.

Descriptive.—On the south, Wisconsin's pleasant prairies melt away into the rich levels of Illinois. Westward, the broad Mississippi, and its tributary, the St. Croix, separate the Badger State from Iowa and Minnesota. On the east, the broad inland sea of Lake Michigan flows for 200 miles along the Wisconsin coast; and on the north, Lake Superior has a shore-line of 120 miles. The northeast is bounded by the rugged Upper Peninsula of Michigan, and shares its abounding mineral wealth. The highest part of Wisconsin is along the Penokee and the rugged connected ranges, near the Montreal River, and 1,800 feet above the sea. These picturesque wooded mountains swing around the sources of the Chippewa and Wisconsin, at a general height of about 1,000 feet, separating the Mississippi waters from those of the Lake-Superior streams. The ranges of the north come within 30 miles of Lake Superior, whence the land falls away rapidly to the lake; and a low watershed runs south into Illinois, the streams on one side flowing to the Mississippi, and on the other to Lake Michigan. Four fifths of the State is drained into the Mississippi, which flows along the western border for 400 miles, a noble avenue of commerce.

The southwestern counties have a series of singular isolated knobs, rising with fine effect above the level lowlands, and landmarks over leagues of prairie. Sinsinnewa Mound is 1,169 feet high; Platte Mound, 1,281; and the Blue Mounds, 1,729. The lower part of the State is an extension of the great rolling prairie of Illinois, beautified by many pleasant oak-openings and park-like bits of forest, and occupied by a prosperous farming population. Northward the woodlands encroach more and more on the prairies, until they cover the whole country with their profound shades, which are broken by the sparkling waters of thousands of bright lakes and ponds. Forests still cover nearly half of Wisconsin, whose exports of lumber are only excelled by Michigan and Pennsylvania. The pineries are a source of great wealth, because of the unceasing demand for lumber from the prairie States; and $27,000,000 worth of lumber, lath and shingles are made here yearly, by 30,000 men. The Wisconsin forests have developed an enormous value, and now produce 1,500,000,000 feet of lumber and over 1,000,000,000 lathes and shingles every year.

Oneida County is famous for its pine and other timber lands, and besides this, it has been regarded as a possible field for mineral developments, bordering as it does on the State line between Wisconsin and Michigan, directly adjacent to the great mines of the Upper Peninsula. Over 80,000 acres of land in this county are owned by the Land, Log & Lumber Company, a staunch Wisconsin corporation, operating with a paid-in capital of $2,140,000, under the presidency of David M. Benjamin, of Milwaukee, a resident of the northwest for 28 years, and now representative of Wisconsin on the World's Fair Commission. These 80,000 acres are mainly white pine lands along the Wisconsin River, and on tributaries of the Wisconsin and Chippewa Rivers. They are as yet chiefly a part of the great timber wilderness, but at no distant day will become of immense value for their lumber. Already much lumbering is being carried on at various points, such as Wausau with 12,000 inhabitants, Merrill with 7,000, Tomahawk with 2,500, and Rhinelander 2,500. At these places about 350,000,000 feet of lumber are made annually. There is besides the pine, a vast quantity of oak and birch used for finishing; basswood used for furniture; and poplar and spruce extensively used in paper making in Wisconsin and other States. Several railroads

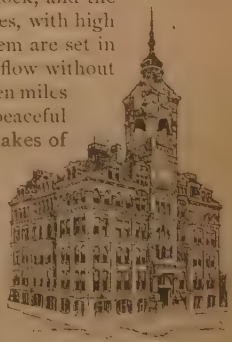
ONEIDA COUNTY: LAND, LOG & LUMBER CO.


DALLES OF THE WISCONSIN.

either go through or close by parts of the lands owned by the Land, Log & Lumber Company—the Chicago, Milwaukee & St.-Paul, the "Soo," and the Milwaukee, Lake-Shore & Western. Outside of Oneida County the company owns 8,000 acres in Douglas County, and various other properties, aggregating 120,000 acres.

The fine and imposing isolated hills of sandstone scattered over a wide area north and northwest of the Dalles of the Wisconsin constitute another marked feature. These (like Pentwell Peak) are often very abrupt, with castellated summits and wild and rugged slopes. They are for the most part isolated, and rise from low level land, and so are all the more striking. Beyond the sound of the woodmen's axes, bears, deer, elk, porcupines, wolves, lynxes, and many smaller animals are found in the vast and lonely northern forests.

Wisconsin abounds in phases of charming scenery, like the deep-cut Rood's Glen and Witches' Gulch, near Kilbourn; the rugged castellated crag of Pentwell Peak; the falls of the Chippewa and the St. Croix; the high-towered Fortification Rock, and the cliffs overhanging Lake Pepin. There are hundreds of deep-cut lakes, with high banks and romantic surroundings of field and forest. Many of them are set in bowls of rock, or glacial drift, over whose rims their crystal tides flow without ceasing. The largest of the lakes is Winnebago, 30 miles long and ten miles wide, whose scenery charmed and attracted the pioneers until its peaceful shores were lined with villages. Geneva Lake, the chief of the 25 lakes of Walworth, is pleasantly endowed with bold bluffs, high wooded banks and winding shores, and has for many years been a favorite summer-resort for Chicagoans. Devil's Lake, near "the serene vale of Kirkwood," in Sauk County, is a deep emerald pool, half a league long, enwalled by rugged rocky and wooded bluffs, over 400 feet high, and the remarkable quartzite rocks of Cleopatra's Needle, the Devil's Door-way, and other strange formations, standing on imposing bluffs. Green Lake, six miles west of Ripon, 15 by three miles in area, sparkles in a paradise of groves and prairies; and Elkhart, Delavan, Lauderdale, Spring, Tomahawk, Oconomowoc, Okauchee, Nashotah, Pewaukee, and the Four Lakes of Madison, and other inland waters attract great numbers of visitors every summer.


MILWAUKEE: CHAMBER OF COMMERCE.

Located in the little village of Waukesha, 20 miles west of Milwaukee, near Lake Michigan, and within 100 miles of Chicago, is one of the most famous health-resorts in the world. The time is past when it is necessary for invalids to go to the European spas, for right in the United States are baths and springs with medicinal properties equal if not superior to any in Europe. In Waukesha are ten springs, but only one of great power. That one, which is the famous "Bethesda," was the pioneer, and stands to-day without a rival. This was discovered in 1868 by Col. Richard Dunbar, and since that time its popularity has been steadily growing. Not only in this country is Bethesda water in extensive use, but in Europe, where, in the face of the opposition of famous European waters, it has been in use at so conservative an institution as Guy's Hospital of London. In connection with the spring are the Bethesda Baths,

GENEVA LAKE.

which are open from June to October. The water is shipped to all parts of the world by the Bethesda Mineral-Spring Company, but is never sold or shipped in any other way than in the regular Bethesda half-gallon bottle, with the Bethesda labels and signatures. The plant of this company covers 20 acres, much of it being taken up by the lovely park where the spring is located. Besides the park, the company have a two-story bottling-house, where about 20 men are employed the whole year around. The company was the first to put up natural water in light-green apollinaris-shaped half-gallon bottles, and adheres absolutely to the Bethesda bottle to avoid fraud. Natural Bethesda is a cure for diabetes and Bright's disease; while the effervescent Bethesda is a perfect table-water, no doubt ever being raised as to its purity. Owing to its mineral qualities, it creates gastric juice, and is an aid to proper digestion. The company also manufactures a brand of ginger ale, which is considered exceptionally fine, using Bethesda water as a basis. The spring is in a pavilion in the centre of the park, and only about 300 feet from the bath-house. It is reached by a descending asphalt walk, and is enclosed by an iron railing. The spring bubbles up from the bottom of a marble basin of octagon shape, and backed by heavy cut-stone masonry; the water flows continuously, never varying and never freezing.

WAUKESHA: BETHESDA MINERAL SPRING.

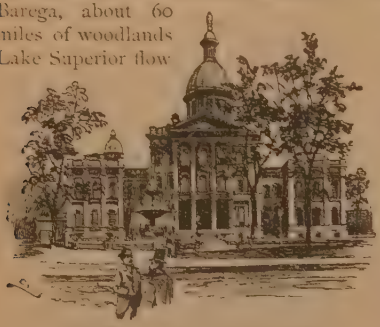
WAUKESHA: BETHESDA MINERAL SPRING.

Near the world-famous Bethesda spring is the exceptionally favorite Fountain-Spring House, of Waukesha. This hotel, like the Bethesda spring, to which it owes its location, is of rare excellence. It is built entirely of stone and brick. The first house was burned in 1878. In 1879 the present hotel was built, at a cost of about $1,250,000. It covers about three acres of ground, and has a quarter of a mile of veranda. In the dining-rooms, of which there are three, 800 people may be served. The largest of these dining-rooms will seat 500. The hotel is surrounded by 155 acres of private grounds, laid out in the form of a park. There is attached to the hotel the largest bathing establishment in the Northwest. There are two pools of mineral water, clear as crystal, and warmed to a comfortable temperature by steam pipes. Each pool measures 50 by 80 feet. One of them is for gentlemen, and the other for ladies and children. The Fountain-Spring House, by reason of the beneficial local springs, the charming surroundings, the substantial character of the buildings, and the pleasant drives, has become one of the most satisfactory resorts in the country and secures its great patronage from an unusually select clientage. This is one of the largest, most modern and most successful summer-resort hotels in America. It is open from June 15th to September 15th.

WAUKESHA: FOUNTAIN-SPRING HOUSE.

The Ton-ya-wath-a Springs, near Madison; Vita Springs, at Beaver Dam; Palmyra Springs, and other summer-resorts of similar character are well patronized, particularly by the people of the Southern States. On La Madelaine, one of the Apostle Islands, in Chequamegon Bay, Lake

Superior, still remains the half-deserted Chippewa hamlet of La Pointe, the great metropolis of the Lake-Superior country in the days of the Indians and fur-traders and Canadian voyageurs, early in the present century. The old Catholic church there was built by Father Barega, about 60 years ago. The Apostle Islands cover 200 square miles of woodlands and wave-worn cliffs, about which the waters of Lake Superior flow in bright blue labyrinths.



MILWAUKEE: COUNTY COURT HOUSE.

The Mississippi River caresses the Wisconsin shores for 400 miles, amid scenes of unusual beauty; its clear and limpid waters flowing around hundreds of oak-crowned islands, and along the fronts of heavily wooded hills and castellated sandstone walls, overlooked by nature's rugged towers and splintered spires of white limestone. Here and there smiling prairies break the succession of dark ridges and ravines; or bright streams come rippling out from the woodlands; or white villages gleam along the tranquil shores. Mountain Island shoots up to a height of 560 feet above the quiet waters, and bore among the French *voyageurs* the name of *Le Mont qui trempe à l'Eau* ("The Mountain which dips in the water"). This name still lingers in the pretty village of Trempealeau, five miles south. Farther up, the river broadens into Lake Pepin, 25 miles long, and in places five miles wide, and bordered by picturesque bluffs 800 feet high. The Mississippi receives from Wisconsin the St.-Croix, Chippewa, Buffalo, Trempealeau, Black and Wisconsin Rivers, besides many smaller streams. The Wisconsin, from its source in the remote Vieux-Desert Lake to the Mississippi, is 600 miles long, and cuts the State in halves. It is navigable for 200 miles, to Portage City. Near Kilbourn City, the Wisconsin flows for more than two leagues through the Dalles, between sheer walls of friable sandstone, cut into curious forms by the action of the water. Thousands of tourists visit this region every season. The Chippewa is 300 miles long; the powerful St.-Croix, 200; and the Black, 200. The Fox River has a length of 250 miles, and at Portage City is joined to the Wisconsin by a Government canal half a league long, following the portage traversed by many generations of Indians, fur-traders, Jesuit priests and French, English and American soldiers, on their way by canoe between the Mississippi and Lake Michigan.

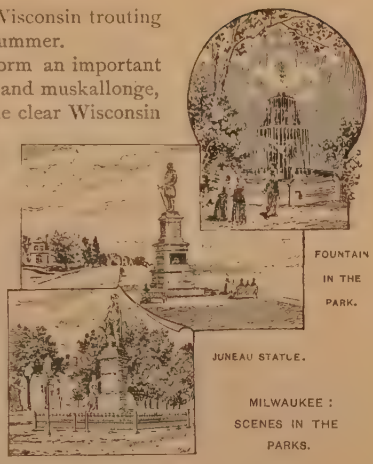
MADISON: UNIVERSITY OF WISCONSIN.

In its 40-mile course between Lake Winnebago and Green Bay, the Fox River produces a great water-power, which is availed of by the factories of Menasha, Neenah, Appleton, Kaukauna and Depere. The Menomonee and Oconto, each 130 miles long, flow into Green Bay, a fine estuary running 100 miles southwest from Lake Michigan, towards Lake Winnebago, and named from its color, due to its 80 fathoms of depth. The Sheboygan, Milwaukee, Manitowoc and Kewaunee flow into Lake Michigan, with improved harbors at their mouths. The Montreal, Bois-Brulé, St. Louis and other streams descend swiftly to Lake Superior, falling 600 to 800 feet over many a cascade and cataract. The

LAKE PEPIN, ON THE MISSISSIPPI RIVER.

Bois Brulé is one of the most famous of the many Wisconsin trouting streams, and is visited by many sportsmen every summer.

The whitefish and trout of the Great Lakes form an important article of commerce; and pike and pickerel, bass and muskallonge, perch and sturgeon, and brook-trout abound in the clear Wisconsin waters. The State Fish Commission is continually active in keeping up this valuable supply of food-fish, and has a completely appointed main hatchery at Nine Springs, four miles from Madison, as well as a large whitefish hatchery at Milwaukee.



FOUNTAIN IN THE PARK.

JUNEAU STATUE.

MILWAUKEE: SCENES IN THE PARKS.

WASHINGTON MONUMENT.

The Climate is subject to high extremes, with warm summers, averaging 60° in the north and 70° in the south, and long, dry and cold winters, ranging from 25° to 15°. The neighborhood of the Great Lakes warms the air in winter and cools it in summer. Snow often remains on the ground all winter, and the lakes and rivers are generally frozen from December until March. The autumnal seasons are mild and pleasant, but the springs are backward. The rainfall is 31 inches in the south, and 35 on the northern coast.

The Farm-Products of Wisconsin reach $105,000,000 a year, and happily include a great diversity of crops, so that the failure of any one can be endured without distress. Among the yearly products are oats, 50,000,000 bushels; corn, 30,000,000; wheat, 13,000,000; barley, 12,000,000; potatoes, 12,000,000; apples, 1,700,000; 2,300,000 tons of hay; and 30,000,000 pounds of tobacco for cigar wrappers. Barley and rye also form articles of a large commerce; and the product of fruit is considerable, including choice apples and cranberries. In the growth of hops, Wisconsin once stood among the foremost. In 1867–8 the famous hop-fever swept over the State, and immense areas of land were planted with hops, only to be ploughed up a year or two later, when the price had fallen from 55 cents a pound to ten cents. The fertile and easily tilled limestone prairies of the southwest are remarkably fruitful, and contain thousands of prosperous farms. The north and east is overlaid with rich sandy and clayey loams; while much of central Wisconsin has a poor and sandy soil. The principal market for flax is Kenosha; and for tobacco, Edgerton, Stoughton and Madison. Wild rice grows about the lakes, and the Indians find it valuable for food. The Menomonees get their name "wild-rice eaters" from this fact. The livestock of Wisconsin is valued at $80,000,000, and numbers 1,200,000 cattle, 400,000 horses, 900,000 sheep and 800,000 swine. The yearly product of the dairies is $12,000,000, and includes 36,000,000 pounds of butter and 33,000,000 pounds of cheese. This business centres at Sheboygan.

MILWAUKEE: WATER TOWER.

Minerals.—Wisconsin is one of the foremost iron States, and sends from her northern highlands 800,000 tons yearly of specular and magnetic ores. These are the famous ores of the Lake-Superior region, and occur here in abundant deposits of the richest quality, mainly in the Penokee Range, and the northeastern counties. Red

MILWAUKEE: ST. PAUL'S CHURCH.

ASHLAND: ASHLAND IRON & STEEL COMPANY.

hematite is mined in large quantities at Iron Ridge, in Dodge County, and brown hematite in Sauk County.

The Hinkle Charcoal Furnace, owned and operated by the Ashland Iron and Steel Company, is located on Chequamegon Bay, Lake Superior, at Ashland. This city is the shipping port of the great Gogebic iron range, whose immense deposits of rich hematite Bessemer ore were not fully known until the year 1885. The proximity to this inexhaustible supply of ore, as well as the immense forests of hardwood timber near by, suggested the location of the Hinkle Furnace at Ashland. It was completed and blown in April 4, 1888. The stack is 60 feet high, and twelve feet bosh. Up to this time, no single charcoal stack had ever exceeded 85 tons output in 24 hours. The "Hinkle" has eclipsed all previous records, having repeatedly run 150 tons a day, the highest weekly output being 1,009 tons. The company owns valuable real estate in Ashland, a growing and prosperous city, and hardwood timber-land within a few miles. It manufactures its own charcoal. The kilns, nearly 100 in number, are located on the W. C. and M., L. S. & W. railroads. About 500 men are employed. Their specialties are malleable, foundry, and car-wheel iron; and special grades are manufactured, which are particularly adapted to various foundry purposes. The company has made an important departure in establishing a laboratory at their works. All their raw products are carefully analyzed before going into the furnace, and every cast of pig iron is likewise analyzed, so that they are enabled to furnish analysis for every car of pig iron shipped. The chief owners and officers of the company are: A. H. Hinkle, president, Cincinnati, O.; W. H. Hinkle, secretary and treasurer, Minneapolis, Minn.; and Morris R. Hunt, manager.

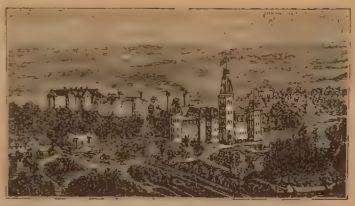
MILWAUKEE: EXPOSITION BUILDING.

Southwestern Wisconsin is rich in deposits of sulphide and carbonate of zinc and sulphide of lead, in the Galena-Dubuque region. The Indians and French used to get lead here; and in 1821 the Americans opened operations, which were continued for a quarter of a century, until the output reached 25,000 tons a year. Stratified beds of clay, deposited by Lake Michigan when larger than now, are found all along its shore, and over 50,000,000 brick are made from them yearly. Although the clay is usually red, the bricks come out cream-colored, and Milwaukee is built of this material (of which she is also the chief maker), and called, therefrom, "The Cream City." Upwards of 500,000 barrels of quicklime are made in Wisconsin yearly, at Pewaukee, Racine, Watertown, and other places. Other valuable products are the quartz-porphyries of the central counties, red sandstone of Bayfield and Ashland, granite of Marquette County, mahogany-colored pipe-stone (catlinite) of Barron, fine limestone of Waukesha and Prairie du Chien, cement-rock of Milwaukee, and cream-colored limestone of Westport and Madison.

MILWAUKEE: LAYTON ART GALLERY.

Government.—The executive officers are elected every two years. The legislature has 33 senators and 100 assemblymen, and meets biennially, in the odd-numbered years. The Supreme Court has five justices; and there are 14 district courts, besides those of the counties and municipalities. The State Capitol,

of pearly-white Prairie-du-Chien stone, occupies the summit of a beautiful knoll in a park of 14 acres, at Madison, overlooking the country of the Four Lakes. In the Capitol, besides the usual State departments, are the State Law Library, under the direction of the Supreme Court; and the rooms of the State Historical Society. The greater part of the south transverse wing of the building is occupied by this latter institution, two floors being devoted to its magnificent library of 150,000 volumes (mostly Americana), and another—partitioned into three spacious halls—to its splendid museum of historic, pre-historic and scientific curiosities, and its art-gallery, in which are displayed oil portraits of 150 distinguished Wisconsin pioneers and Indian chiefs. About 40,000 persons visit the museum and art-gallery annually, while the library attracts scholars and specialists from all parts of the West and South. The institution ranks third among American historical societies, and is the most important west of the Alleghanies; in some respects it is recognized by experts as the most vigorous of them all. Its collection of Americana is only excelled by that of Harvard College and the New-York State library, while in material relating to the Mississippi basin it takes the palm. The society is the chartered trustee of the State, and is largely maintained by it. Reuben G. Thwaites is the secretary.



MILWAUKEE: NATIONAL SOLDIERS' HOME.

The militia of Wisconsin numbers 2,254 soldiers, in 35 companies. The State Veterans' Home is at Waupaca. The State Prison, at Waupun, is a group of castellated stone buildings, forming a large quadrangle, outside of which extends a high wall, with towers and guards. The Industrial School for Boys, at Waukesha, has 425 inmates. The Industrial School for Girls and Young Boys, at Milwaukee, has 180 inmates. The Institution for the Education of the Blind, at Janesville, has 85 pupils; the Institution for the Deaf and Dumb, at Delavan, 200; the immense and costly State Hospitals for the Insane, near Madison and Oshkosh, 1,200; and the State Public School, at Sparta, 200 children, on an estate of 165 acres. Near Milwaukee, on a beautiful forest-clad domain of 440 acres, stand the imposing buildings of the Northwestern Branch of the National Home for Disabled Volunteer Soldiers, with chapel, library, reading-room, theatre and conservatories. Nearly 1,400 veterans are quartered here, and furnished with every comfort.

RACINE: RACINE COLLEGE.

The coasts of Wisconsin are lighted at night by 36 Government light-houses: 22 on Lake Michigan, nine on Green Bay, and five on the Apostle Islands, in Lake Superior. The local steam-fleet numbers nearly 200 vessels.

Education is richly provided for by the Federal and State land-grants, which have already brought in a fund of $3,000,000, although vast areas remain unsold. The school expenses rise above $3,800,000 a year. Every child between seven and twelve must attend school for twelve weeks yearly. The State Normal Schools at Platteville, Whitewater, Oshkosh, River Falls and Milwaukee have 1,400 students. The University of Wisconsin has a beautiful situation in a great park on University Hill, on the shore of Lake Mendota, northwest of the Capitol, at

MILWAUKEE; JUNEAU PARK.

MILWAUKEE.

Madison. It is supported by a State tax of one eighth mill on the dollar, and has an income exceeding $100,000. The University numbers 54 persons in its faculty, and 800 students, including 70 in the classical course, 90 in science, 110 in engineering, 100 in law and 35 in pharmacy. The Washburn Observatory, built in 1878–80, at a cost of $50,000, and given to the University, with a full equipment, by Gov. C. C. Washburn, has published many volumes of its transactions. Connected with the University is the State Experimental Station, one of the best in the country.

Beloit College, "the Yale of the West," was founded in the year 1847 by the Congregational and Presbyterian ministers of the surrounding counties, for the thorough liberal Christian education of young men. It has a pleasant campus of 24 acres, on a plateau dotted with oak-openings and Indian mounds, and sloping down to Rock River; and eight buildings, including the handsome stone Memorial Hall, containing the library of 14,000 volumes, and commemorating on its tablets those who perished out of the 400 Beloit students who enlisted in the civil war. Beloit has been notable for the great number of clergymen among its graduates. It has 20 instructors and 100 students, besides a preparatory academy of great merit, with 250 pupils. In 1889 Beloit's endowment and property were increased by nearly $250,000, by a series of noble efforts on the part of its graduates and friends. Racine College is a creation of the Episcopal Church in Wisconsin, and has a spacious quadrangle of handsome Gothic buildings on a bluff over Lake Michigan. It was opened in 1852; and from 1859 to 1879 came under the care of the Rev. Dr. James DeKoven, who gave it the character of the great English public schools, with careful moral, spiritual and intellectual training. In 1890 the collegiate department was abandoned for lack of support. There remain, however, 115 students in the preparatory school. Lawrence University was founded in 1847, by the bounty of Amos A. Lawrence, of Boston, in the rugged wilderness where the city of Appleton now stands. It belongs to the Methodists, and has 70 students. Ripon College began its labors in 1853, and owns three stone halls, in a pleasant campus of twelve acres. It is a Congregational and co-educational school. Milton College dates from 1867, and pertains to the Seventh-Day Baptists. Galesville University is a small Presbyterian school. Northwestern University, at Watertown, is Lutheran. Carroll College, at Waukesha, was chartered in 1852. Nashotah House was founded by the Episcopal Church in 1841, on a tract of 450 acres along the beautiful Nashotah Lakes, as a mission-house in Bishop Kemper's vast diocese. It has since been a theological training-school for hundreds of missionaries, and is very dear and precious to the Church in the Northwest. Shelton Hall and the Chapel are handsome buildings of white stone, and Bishop White Hall is the home of the students. The Lutheran Theological Seminary is at Milwaukee; the Reformed-Church Mission House, at Franklin; the Seminary of St. Francis de Sales, at St. Francis. The Wisconsin Sunday-School Assembly owns a park of 30 acres on Monona Lake, and has a tabernacle, pavilions and similar structures, where several thousand persons

APOSTLE ISLANDS: NATURAL ARCHES.

BELOIT: BELOIT COLLEGE.

spend ten days each summer, attending lectures and classes. It is a branch of the great Chautauqua enterprise. The La-Crosse Public Library, with over 10,000 well-chosen volumes, occupies a handsome building, whose cherry-red brick makes a contrast with the surrounding green lawns. This institution received $50,000 from the late Gov. C. C. Washburn. The libraries of Nashotah, Beloit, Lawrence University, and St.-Francis Seminary contain more than 10,000 volumes each, while the State University library has 18,000 volumes. The Milwaukee Public Library is one of the best managed in the United States. There are excellent city libraries, also, at Madison, Green Bay, Beaver Dam, Ashland, Tomahawk, Superior, Berlin, Appleton and other cities.

MADISON, THE CAPITAL OF WISCONSIN.

Newspapers. — The first Wisconsin newspaper was the *Green-Bay Intelligencer*, in 1833, eleven years after the first Wisconsin post-office was established, at the same place. There are now upwards of 500 newspapers in the State, 40 dailies, 440 weeklies and 40 monthlies. In the German language there are 94, five Scandinavian, and others in Polish, Bohemian, Danish, Norwegian and Hollandish. Of this great array of periodicals, religion, education, agriculture and labor have ten each, and temperance has 17, while others are devoted to secret societies, music, charity, sporting, mining, and philately. In Milwaukee, the oldest paper is the *Wisconsin*, the lineal successor of the third paper established in the Territory. The oldest daily in Milwaukee is the *Sentinel*, established in 1844; but it was very closely followed in 1847 by the *Evening Wisconsin*, a paper that has ably and honorably earned the esteem of its great constituency throughout the Northwest. The initial number of the daily *Wisconsin* in 1847 was William E. Cramer's entry into the State's journalism; and ever since, now 44 years, he has been constantly at its head. Since 1854 his partner has been A. J. Aikens — an uninterrupted partnership of 37 consecutive years. John F. Cramer, the junior partner, has been in the firm over 25 years. Their primitive sheet of territorial days has developed into one of the strong, prosperous and influential newspapers of the whole Union, and the hand-press circulation of their little daily and weekly (of less than 3,000 a week) into a combined circulation of over 125,000 a week. The crude printing-office, too, has become one of the largest and best equipped in the Northwest. In the wonderful growth of this section the *Wisconsin* has been a powerful aid, fearlessly supporting that which it believed to be right and best. It has never sold a line of its editorials. Its columns have been kept pure and wholesome. Mr. Aikens is said to be the practical originator of the "patent-inside" papers; for it was he who first introduced advertising into the sides containing the general news, and thus made it possible to bring the price of the printed sheets into the needs of the country publishers. The *Wisconsin* is published by Cramer, Aikens & Cramer, who also are extensive periodical, book and commercial printers. The *Wisconsin* building is one of the fine structures of Milwaukee.

MILWAUKEE: EVENING WISCONSIN.

Churches. — There are accommodations in Wisconsin for over 500,000 persons, the Methodists and Catholics each having about one quarter of the sittings, and the Congrega-

tionalists, Baptists and Lutherans each one tenth. The Episcopalians divide the State into the dioceses of Milwaukee and Fond du Lac, with a handsome little cathedral at the latter place, and the noble Norman Church of St. Paul at Milwaukee.

ASHLAND, ON CHEQUAMEGON BAY.

Chief Cities.—Milwaukee, with its noble public buildings and busy factories, is one of the greatest cities of the Northwest, on a site diversified by graceful hills, far-reaching suburbs melting into rural gardens and prairie farms, and a generous profusion of domes and spires. The Government has formed a spacious outer harbor, by building breakwaters, and the Milwaukee River admits the largest vessels to the heart of the city and the doors of the warehouses. Steamships have been dispatched from this port to England, without breaking bulk. The immense flour-mills and grain-elevators (with a capacity of 6,000,000 bushels) furnish lading for large commercial fleets. Fully half the population is of German origin, which may partly account for the high local development of art and music, and for the enormous breweries. Hence also comes the singular diversity of the local architecture, and the frequency of signs in a foreign language. Milwaukee has risen from a village of 2,000 inhabitants in 1840 to be one of the foremost grain-ports of the world, with large manufacturing interests also.

One of the finest hotels in the Northwest is the Plankinton House, at Milwaukee, which is favorably known to all travelers in this country and in Europe. The Plankinton House in name has been running about 20 years, but the present building is by no means of that age. Additions were made to the first building from time to time, and the hotel as it now stands represents a cost of over $1,000,000. Its street frontage is 830 feet, or about one seventh of a mile. The house now has 600 rooms, and occupies more than half a block, according to the Western rule, that there are five blocks to a mile. The building is five stories high, and of sandstone. The furnishing of the hotel is on a very elaborate plan. In the 15 best front rooms there are mahogany chamber sets. The dining-room and parlors are however its crowning glory. The furniture is solid rose-wood, covered with expensive silk tapestry. Around the walls of the dining-rooms are nine of the largest mirrors to be found in the West. The square ones are nine by twelve feet. The office is handsomely furnished. The mantel here is twelve feet wide and 16 feet high. The pilasters of this mantel represent America, Europe, Asia and Africa. The house was owned by the late John Plankinton, one of the wealthiest men of the Northwest. It was fortunate for the city of Milwaukee to have had so good a hotel as the Plankinton has been for so many years, for the visitor who sees this beautiful city goes away well pleased with all the many sights, and abundantly satisfied with his hotel accommodations.

MILWAUKEE: THE PLANKINTON HOUSE.

MILWAUKEE: C., M. & ST.-PAUL R. R. DEPOT.

Madison, the capital of Wisconsin, has a situation of unusual beauty, on the narrow and hilly strip between Lakes Mendota (nine by six miles) and Monona (five by two miles), clear and crystalline sheets, fed by vast springs and bordered by white gravelly shores. In the vicinity are the Lakes Waubesa, Kegonsa and Wingra, somewhat smaller

than the others. The Capitol, University, and other public buildings are placed on commanding hills, and overlook this lovely lake-country for leagues. Pure springs, beautiful drives, exciting bass-fishing, boating of all kinds, and Chautauqua assemblies attract many summer-visitors and permanent residents with wealth and leisure to this charming little city, with its libraries, churches and other metropolitan luxuries. Longfellow depicted this locality, and its

"Fair lakes, serene and full of light,
Fair town arrayed in robes of white."

La Crosse occupies a pleasant site on the Mississippi, whose majestic flood here sweeps around several green islands; and its saw-mills and factories employ 8,000 persons. On this site the Indians used to play their favorite game of *la crosse*. Eau Claire and Chippewa Falls are also well-known for their lumber. Racine has a good harbor, with large shipments of grain and produce, and stands on a plateau projecting into Lake Michigan, at the mouth of Root River. Kenosha's harbor is made by piers projecting into the lake, and receives a lucrative commerce. Janesville, Beloit and Watertown are the chief cities along Rock River. Sheboygan and Manitowoc are lake-ports farther north. Another group of cities, in the east, includes Fond du Lac, nestling among the hills around Lake Winnebago, amid rich prairies, and with a great lumber-trade; Oshkosh, a busy city of saw-mills and factories, on the same bright lake; Menasha, in the pleasant scenery at the foot of Winnebago; and Neenah and Appleton, with their paper-mills and valuable water-powers.

Prairie du Chien received its name from an Indian chief, The Dog (*Chien*), whose tribe formerly dwelt there. It was captured by Col. McKay's British and Indian expedition, in 1814, and held for nearly a year. The city occupies a pleasant prairie on the Mississippi shore, just above the inflowing of the Wisconsin. Ashland and Bayfield are twin Lake-Superior ports on Chequamegon Bay, a landlocked harbor 30 miles in area, with deep water and clear channels, and large docks for the shipment of lumber and ores. This locality, near the beautiful Apostle Islands, has become known as a summer-resort. West Superior had about 400 inhabitants in 1885, and in three years following grew twentyfold, with immense coal-docks, elevators, iron-pipe and steel works, the distributing docks and tanks of the Standard Oil Company for the Northwest, and the largest coal-dock in the world (with a capacity of 1,000,000 tons). At this point seven railways converge upon a deep harbor, at the extreme end of Lake Superior.

MILWAUKEE:
CHICAGO & NORTHWESTERN R. R. DEPOT.

The First Railway in Wisconsin was begun in 1850 by the Milwaukee and Mississippi line, which laid down ten miles of track between Milwaukee and Elm Grove. This line reached Janesville in 1852. The State now has more than 5,000 miles of tracks, built at a cost of $210,000,000, and showing net yearly earnings of above $8,000,000. The Chicago, Milwaukee & St.-Paul lines cover the southern part of Wisconsin with a network of 1,300 miles of rails, beginning at Chicago, and touching Beloit, Madison, Milwaukee, Portage City, Prairie du Chien, Oshkosh and many other localities, and crossing far west into the Dakotas. The Milwaukee & Northern runs north to Green Bay and the iron country of Michigan. The Chicago & Northwestern has 950 miles in Wisconsin, leading from Chicago to Fort Howard and Milwaukee, Fond du Lac, Kenosha, Rockford, Winona, Janesville and La Crosse. The Chicago, St.-Paul, Minneapolis & Omaha owns and leases nearly 600 miles, reaching from Chicago to Beloit, Milwaukee, Madison, Bayfield, Ashland, Superior, Eau Claire and St. Paul. This line was started in 1868, from Warren's Mills to Black-River Falls. The Chicago, Burlington & Northern follows up the Mississippi Valley for 224 miles, by La Crosse, Winona and Lake Pepin. The Wisconsin Central controls 450 miles of track in Wisconsin. It begins at Chicago and reaches Milwaukee and Oshkosh, and then runs northwest to Bessemer, Ashland

and Superior, on Lake Superior. The Milwaukee, Lake-Shore & Western has over 600 miles of track, running north from Milwaukee to Ashland. The Minneapolis, St.-Paul & Sault-Ste.-Marie line cuts straight across the northern wilderness from the St.-Croix Valley to the Menomonee, with 267 miles of track.

MILWAUKEE : WISCONSIN . MARINE & FIRE INSURANCE COMPANY BANK.

The Finances of Wisconsin are in a peculiarly fortunate condition. The State debt, largely incurred on account of the civil war, has all been paid, and there is a surplus of over $3,000,000 in the treasury. The oldest bank in the West, and largest bank in Wisconsin, is the Wisconsin Marine & Fire Insurance Company Bank of Milwaukee, established in 1839, over 50 years ago. The capital stock is $500,000, being all that the Constitution of the State of Wisconsin allows, but by law all its stockholders, representing millions of dollars, are individually and collectively liable for all obligations of the bank. At the time their report was made to the State treasurer, July 7, 1890, it showed they had out $4,620,159 in loans and discounts; bonds and stocks of $775,527; specie to the amount of $43,951; clearing-house checks, $49,752; currency, $259,695; due from banks, $1,002,749; and these with $9,252 in over drafts made the total amount of the bank's resources $6,761,086. This bank was popularly known for nearly half a century as "Alexander Mitchell's bank," the railroad magnate and financier of his time being the head of this institution. His son, John L. Mitchell, succeeded him as president, while two of his old associates, David Ferguson and John Johnston, remain active respectively as vice-president and cashier, the one having been 51 years and the other 35 years in the institution. The bank is in the Mitchell Building, alongside the Milwaukee Chamber of Commerce. When this bank was founded Milwaukee had a population of 1,500, and Wisconsin had 30,000. A semi-weekly stage afforded the only public communication between Milwaukee and the Mississippi Valley, where now 40 railway trains daily fly across the State.

Manufactures in Wisconsin are more than 10,000 in number, with a yearly product of over $150,000,000. As the drift of emigration pressed westward, the hemlock forests of the Northwest attracted tanneries to this section of the country. The abundance of hides and bark were here at hand, and Western enterprise soon took advantage of these favorable circumstances. Milwaukee, on account of its favorable natural situation, soon became the western manufacturing center for leather. Small tanneries rapidly developed into large institutions. The earliest of these tanneries was started by the late Guido Pfister and Frederick Vogel, Sr. Beginning in a modest way, the labor of these men has developed into the largest upper-leather tannery, not only in this section but in the whole country. The partnership of Pfister & Vogel was changed in 1872 into a stock company, known as the Pfister & Vogel Leather Company, with a capital stock of $200,000, which was subsequently increased to $400,000, and a surplus of $700,000. In addition to their upper-leather tanneries, they are now operating large sole-leather and sheepskin tanneries, the four tanneries covering about 16 acres of ground, and the total investment being over $2,000,000. The total production during the past year was 450,000 sides of upper and sole leather, and 350,000 sheep, goat, calf and kipskins. To tan this amount 18,000 cords of hemlock bark were used. The company manufactures a greater variety of leather than any other firm in the world, making specialties of the following: Union and hemlock sole, harness, line and strap leather, colored and russet skirtings, collar leathers,

MILWAUKEE : PFISTER & VOGEL LEATHER CO.

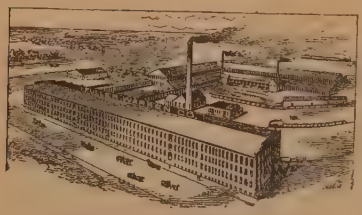
satin finish grain, English grain, oil and boot grain, wax, calfskin and union upper, flesh, grain and flexible splits, glove-leather of all kinds in deer, goat and sheepskin, colored leathers, dull and glazed dongola kid, cordovan golashes, and horsehide. They have an agency at Chicago and Boston. Half of their product is disposed of by the Boston office, in the greatest leather market of the world.

Milwaukee possesses the Pabst brewery, unsurpassed by any in the world. The nucleus of this immense establishment was the old Empire Brewery, started by Jacob Best in 1842. He was assisted by his four sons, and for the first few years all the work was done by these four men. In 1860, however, his son Phillip took the management. Hitherto the output had been for local consumption, and amounted to only about 3,000 barrels a year. In 1863 the output had risen to 3,667 barrels a year, and when Mr. Best admitted Capt. Fred Pabst, his son-in-law, the annual product was 4,895 barrels. In 1865 Mr. Best retired, but the business was continued under the style of Phillip Best & Co. By this time the beer had become known, and the output was upwards of 11,000 barrels a year. In March, 1873, the company was incorporated, under the style of the Phillip Best Brewing Company, with a capital of $300,000. The next year this was increased to $2,000,000. All this time the company was increasing its output, and of necessity increasing the plant. In 1886 the output was 440,443 barrels. In March, 1889, the corporate name of the Phillip Best Brewing Company was changed to that of the Pabst Brewing Company, and the capital was increased to $4,000,000. The annual output amounted then to 585,300 barrels. The bottling house of this company is the only one in the country where the beer is drawn through underground pipes, thus preventing the escape of carbonic acid. The present capacity is 1,000,000 barrels a year. The actual sales for the year 1890 amounted to 700,233 barrels. The plant occupies a floor-space of 34½ acres. The great ice-machines produce an equivalent to 146,000 tons of ice annually. The hands employed number 1,000; and the annual pay-roll amounts to $400,000. The company was awarded the gold medal at the Paris Exposition in 1878. The fame of the Pabst brewery is world-wide.

MILWAUKEE: PABST BREWING COMPANY.

If the old-time farmers, who stood before the old open cylinder and watched the slow tread of a horse power, could see the present methods of threshing by steam-power, and caring for the grain, they would deny the existence of scientific principles in the old methods. Steam seems to have taken the precedence in farming, as well as in all other branches of industry. The J. I. Case Threshing Machine Company of Racine have been manufacturing threshing machines since 1842; and, starting with a small tread-power separator, they have gradually increased their machines to steam-power outfits of 3,000 bushels a day capacity. Their immense establishment is capable of turning out twelve complete separators, two engines, 15 horse-powers and four saw-mills a day, besides the enormous and nearly unlimited stock of repairs and attachments which is the yearly demand from this mammoth factory. The present company succeeded the firm of J. I. Case & Co., in 1880, and was incorporated in that year, with a capital of $1,000,000 and a surplus much larger. The shops and warehouses cover 40 acres and employ 1,000 men, with a yearly pay-roll of $600,000. There are 10,000 tons of iron, 5,000,000 feet of lumber and $75,000 worth of belting consumed in the annual business of the company. Their goods received the medals at Philadelphia in 1876, at Paris, 1887, and of all the States in the country. They have about 900

RACINE: J. I. CASE THRESHING MACHINE CO.



MILWAUKEE: FULLER WARREN COMPANY.

agencies; and are the largest makers of threshing machines in the world. It is worth noting that Mr. Case (who died in December, 1891,) was one of the noted patrons of the turf, and the horse bearing his initials, Jay Eye See, has the fastest gelding trotting record.

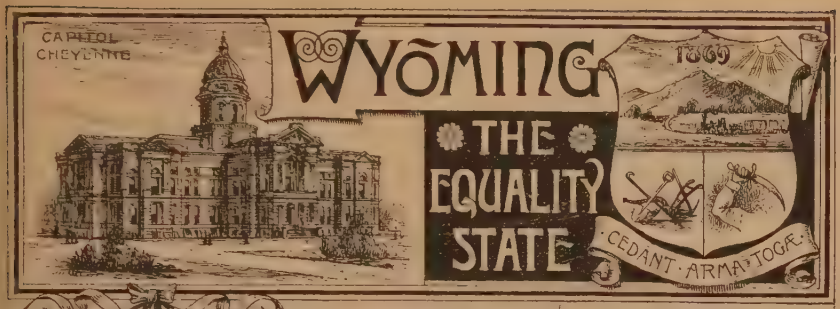
At Milwaukee are the extensive stove-works of the Fuller Warren Company, erected in 1891 with all the advantages of modern improvements, so that it is regarded as a model establishment in this industry. The plant comprises a notable group of brick structures, the main front, 500 feet long, being four stories high, while the foundries are exceptional for length, height, light and arrangement. The products include the long list of world-renowned stoves, furnaces and ranges made by the Fuller & Warren Company of Troy (N. Y.), the two corporations being closely allied and under practically the same management.

The Duluth Elevator Company's series of three elevators, forming the largest system of connected elevators in the world, are at West Superior. They have a capacity of 5,000,000 bushels, and are closely affiliated with the Peavey system of grain-elevators, noticed in the Minnesota chapter. They are among the largest, best equipped and most complete in the world. There are three buildings, connected by fire-proof galleries, and provided with fire-hydrants and automatic sprinklers, incandescent electric lights, and solid timber decks. There are track facilities for 2,000 cars, and unloading facilities for 40 cars an hour. The highest building is 141 feet in altitude.

WAUKESHA.

The development of the forlorn little backwoods hamlet of Superior into a great commercial port began in 1854, under the direction of a land company, which included among its members Senator R. J. Walker, of Mississippi, Senator R. M. T. Hunter, of Virginia, Senator S. A. Douglas, of Illinois, and other prominent men. But the panic of 1857 and the war of 1861–5 shattered the hopes of the village, which remained in a condition of suspended animation until about 1885, since which the locality has gone forward rapidly, with large manufacturing enterprises, railway terminals, elevators and steamship lines. Over 1,200 vessels arrive at and depart from the port yearly, with vast freights of coal, grain and flour. At this point the Wisconsin and Minnesota line runs along St.-Louis Bay, with Duluth on the north side and Superior on the south. Here is the extreme western end of navigation on the great inland seas of America, where the railways from the grain-lands meet the steamships from the coal ports. Ignatius Donnelly prophesies that a century hence these cities will have 10,000,000 inhabitants.

"The *voyageurs* were a wonderful body of men. Mostly French-Indians (half-breeds), swarthy, sunburnt, hardy and daring, they were the heroes of the paddle, and for long years their jocular songs were heard and their fleets of canoes were seen along the rugged shores of the great lake. They were great singers, and sang songs to the music of the paddle. At a later date, they annually performed the almost incredible feat of crossing and re-crossing the continent in birch-bark canoes in a single season. They would start in a canoe from the Pacific Ocean, in April, and threading rivers and lakes, shooting rapids and portaging over mountains, without halt in fair weather or foul, sleeping but four hours in the 24, would reach Fort William, on Lake Superior, by the 1st of July, with the regularity of a steamboat, and returning across the continent with equal precision, arrive at Fort George, at the mouth of the Columbia River, by the 20th of October. They were indeed a strangely interesting race, jocular, and full of song and stories of wild adventure."



HISTORY.

Part of Wyoming, west of the Rocky Mountains, was included in the Oregon Country, and belonged to Oregon, Utah, Washington and Idaho. The lower Green-River country, about Fort Bridger, pertained to Mexico, and became American soil after the Treaty of 1848. Most of Wyoming was included in the Province of Louisiana, purchased from France in 1803, and belonged to the District of Louisiana after 1804, the Territory of Louisiana after 1805, the Territory of Missouri after 1812, the Indian Country after 1834, Nebraska after 1854, Dakota after 1861, Idaho after 1863, and Dakota again after 1864. The Territory of Wyoming was formed from parts of Dakota, Idaho and Utah, in 1868, and it therefore ranks as one of the youngest of the American commonwealths.

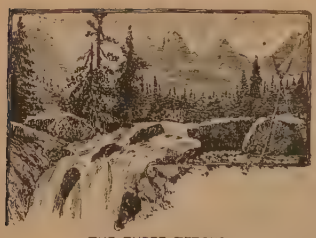
The first white visitors were the Canadian explorers under Sieur de la Verendrye, who, in 1743-4, ascended the gorges of Wind River. A pair of Illinois trappers, and Colter, one of Lewis and Clark's men, spent parts of 1804-7 in the Park region, followed by the heroic hunters of the Missouri Fur Company, who were obliged to fight the Indians throughout all these lonely glens. The first American to explore central Wyoming was the gallant Virginian, Gen. Wm. H. Ashley, who in 1824 led 300 men through the Sweetwater country and the South Pass. Eight years later, Capt. Bonneville, U. S. A., and 110 trappers traversed the South Pass, and erected a fortified camp on Green River. Fort Laramie was built in 1834, by Sublette, and rebuilt two years later by the American Fur Company, who sold it to the Government in 1849. In 1842 the famous trapper, James Bridger, erected the log block-house of Fort Bridger, near Green River; but in 1853 it passed into the hands of the Mormons, who were unwilling to suffer a Gentile stronghold so near their domains. The first migration to the

STATISTICS.

Settled at	Fort Laramie.
Settled in	1834
Founded by	Fur-traders.
Admitted to the U. S.,	1890
Population in 1870,	9,118
In 1880,	20,789
White,	19,437
Colored,	1,352
American-born,	14,939
Foreign-born,	5,850
Males,	14,152
Females,	6,637
In 1890 (U. S. Census),	60,705
Voting Population,	10,180
State Debt,	$320,000
Assessable Property,	$31,500,000
Area (square miles),	97,890
U.-S. Representatives,	1
Militia (Disciplined),	243
Counties,	13
Post-offices,	240
Railroads (miles),	901
Manufactures (yearly),	$898,491
Operatives,	391
Yearly Wages,	$187,798
Farm Land (in acres),	124,433
Farm-Land Values,	$835,895
Farm Products (yearly)	$372,391
Public Schools, Average Daily Attendance,	3,750
Newspapers,	35
Latitude,	41° to 45° N.
Longitude,	104° to 111° W.
Temperature,	—54° to 101°
Mean Temperature (Fort Bridger),	41°

TEN CHIEF PLACES AND THEIR POPULATIONS. (Census of 1890.)

Cheyenne,	11,690
Laramie,	6,388
Rock Springs,	3,406
Rawlins,	2,235
Evanston,	1,995
New Castle,	1,715
Carbon,	1,140
Buffalo,	1,087
Green-River City,	723
Casper,	544

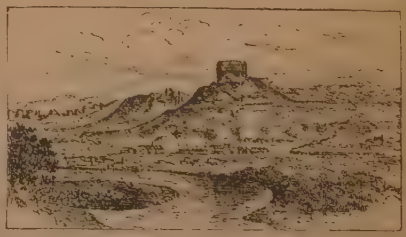


THE THREE TETONS.

Pacific passed across Wyoming in 1834; and thereafter increasing companies of immigrants traversed the region, their heavy Pennsylvania wagons rolling through the South Pass, and on to the Pacific coast. Strange groups followed these perilous trails — Father De Smet and his Jesuit brethren; the New-England missionaries, bound for Oregon; Fremont and his men, the first troops to enter Wyoming; the regiment of mounted riflemen, riding to the Columbia Valley; division after division of Mormon enthusiasts, on their way to Deseret; Gen. Johnston's Army of Utah, in 1857; the California and Nevada Union volunteers, guarding the mails and emigrant-trains back and forth, from 1862 to 1866; and thousands of Argonauts, gold-hunters and other brave adventurers, facing the perils of the wilderness and its savage clans. The first agricultural settlers were several score of Mormons, sent by their church to occupy the Green-River Valley, in 1853.

The Indians waged almost continuous warfare against the immigrants, and killed them by hundreds, and even attacked the forts, and burned Julesburg. The Phil-Kearney massacre occurred in 1866, when Red Cloud marshalled his Indian warriors to prevent the Government from building a road from the Platte to the Yellowstone. Col. Fetterman made a sortie from the beleaguered Fort Phil Kearney, and his entire command was annihilated by the savages. The 111 soldiers slain on that dread day have been buried at the National Cemetery on Custer's battlefield.

When the Territory came into existence it possessed but 3,000 white inhabitants, most of whom had followed the construction of the Union Pacific Railroad. As late as 1875 the greater part of the domain belonged to the Sioux, Crows, Arrapahoes, and Shoshones, who waged an intermittent war against the miners and settlers, and were finally chastised into submission by Gen. Crook, in 1876–7. The Sioux were removed to Dakota, the Crows to Montana, the Utes to Colorado, and the 1,100 Shoshones and 900 Arrapahoes to a reservation on the Wind River, where they still remain.



GREEN RIVER AND BUTTES.

The Name of Wyoming comes from an Indian word, *Maughwauwame*, meaning *Broad Plains*, and was first applied to a famous valley in Pennsylvania. The Commonwealth has been called THE EQUALITY STATE, because ever since its organization men and women have been accorded equal rights to vote, and the people have ratified the same principle in the State Constitution. This was the first community in the world to inaugurate woman suffrage, and twenty years of trial have shown that the best class of women vote, without detriment to themselves, and with increasing benefit to the State. They give their ballots to the best and truest men, regardless of politics, and for this reason both parties are compelled to nominate worthy candidates.

The Governors of Wyoming have been: John A. Campbell, 1869 75; John M. Thayer, 1875–8; John W. Hoyt, 1878 82; Wm. Hale, 1882–5; Francis E. Warren, 1885–6; Thos. Moonlight, 1886–9; Francis E. Warren, 1889–90; and Amos W. Barber (acting), 1891.

The Arms of Wyoming bear a Norman shield, with a railway train rushing through the sunlit mountains, below which, in the lower quarterings of the shield, are a plough, pick, shovel and shepherd's crook on one side, and on the other a mailed hand holding a drawn sword. The motto is, CEDANT ARMA TOGÆ, meaning, "Let arms yield to the gown," or, "Let military authority give way to the civil power."

Geography. — Wyoming is as large as all New England and Indiana combined. Its elevation varies from 3,400 to 14,000 feet, with an average of 6,000. The bordering commonwealths are South Dakota, Nebraska, Colorado, Utah, Idaho, and Montana. A large part of its area is occupied by the mighty mass of the Rocky Mountains, whose snowy peaks rise high above evergreen forests, and are cut by the rocky cañons of many rivers. Among these broken ridges are spacious bare plateaus, dotted here and there with grouped or isolated buttes, flat-topped and with precipitous sides, and strangely suggesting the architecture of Titans. 3,300 square miles are more than 10,000 feet above the sea. The Continental Divide, or culmination of the Rocky Mountains, the northern prolongation of the Colorado Park Range, enters Wyoming south of Rawlins. Farther eastward the granite-crested Front Range of Colorado runs north into Wyoming, breaking into the Laramie and Medicine-Bow Ranges, which are separated by the Laramie Valley. Laramie Peak reaches 11,000 feet, and Elk Mountain, in the Medicine-Bow group, reaches 11,511 feet. The foothills and spurs of the tremendous Uintah Range crowd along the border west of the Sierra Madre, and similar offshoots of the Wahsatch Range fill the western frontier.

About fifty miles north of the Colorado line, the Sierra Madre and the Medicine-Bow Range subside into a belt of flat table-land 150 miles long, from which the Missouri waters flow on one side and those of the Colorado on the other. This section of the Continental Divide is only 1,400 feet above the general level of Wyoming, and has received the names of the Great Divide Basin and the Red Desert. Many of the streams on this broad upland run into sinks and are lost, or disappear in alkali flats. Rawlins stands on the water-shed; and 100 miles west the Continental Divide again becomes sharply defined, in the range running northward from Steamboat Mountain to the South Pass. It is prolonged to the northwest by the Wind-River Mountains, with their austere snowy summits, culminating in Fremont's Peak, 13,576 feet high. Here the country is all on edge, where the Wind-River Range meets the lava plateau of Absaroka. The remarkable Téton Range is crowned by Mt. Hayden (the Grand Téton), 13,691 feet high, and Mt. Moran. The Seminoe, Sweetwater, and other ranges rise from the plateau between the Laramie and Wind-River Mountains. Here the tremendous line of the Big-Horn Mountains begins, near the centre of Wyoming, and runs northward into Montana, reaching heights of from 8,000 to 12,000 feet, and covering 7,500 square miles. A rolling plateau crosses the Powder-River country eastward to the Black Hills, whose dark and heavily wooded heights culminate in the peak of Inyan Kara, 6,700 feet above the sea. The Laramie Plains, sheltered by the Laramie and Medicine-Bow Ranges, cover 2,000,000 acres, at a height of 7,000 feet above the sea. There are areas of irrigable land in the valleys of the Big Horn, Tongue, Powder and Green rivers. The Big-Horn country has for many years been famous for its game, and attracts many parties of American and foreign sportsmen. It covers an immense area, between the Big-Horn and Wind-River Ranges, with the Owl-Creek Mountains on the south. As lately as 1866 this region contained enormous herds of buffalo, and since then it has been used for ranging live-stock. The Wind-River Valley, eight miles wide and 150 miles long, has a rich dark soil and a pleasant climate, with clear and rapid streams flowing through its midst. East of the Big-Horn and Laramie Mountains the Great Plains open away into South Dakota and Nebraska, watered by the North Platte, Cheyenne, Niobrara and Powder rivers. The Green-River Basin, southwest of the Wind-River Mountains, is drained into the Colorado of the West; and part of southwestern Wyoming sends its waters to the Great Salt Lake, through Bear River. From the northwest the Yellowstone, Madison

HIPPOPOTAMUS ROCK.

and Gallatin rivers flow to the upper Missouri; and the Snake River to the Pacific Ocean. None of these streams is navigable in Wyoming. The chief lakes are in or near the Yellowstone National Park. The State Fish Hatchery has distributed millions of white-fish and brook and lake-trout in the streams of Wyoming, stocking many barren waters with valuable food-fish.

Wyoming abounds in natural curiosities — lines of wind-blown sandhills, wonderful fossils, deep cañons, waterfalls, geysers and alkaline lakes. The Cheyenne Cave, near Islay, honeycombs the plateau of Table Mountain with scores of subterranean chambers, brilliant with their panoply of stalactites and crystals. The area of forest in Wyoming covers not far from 10,000,000 acres, mainly on the high mountains, and including large yellow and white pines, white spruces and red cedars.

SHERMAN: THE AMES MONUMENT.

Only one-sixth of Wyoming's soil can be cultivated, and this portion is a sandy loam, which, when irrigated, produces cereals, vegetables and fruits. Districts at the lower altitudes are tilled without irrigation, while the regions dependent on artificial watering draw from the copious springs and snows of the higher mountains. Wyoming is the second commonwealth in the extent of its canals, which aggregate above 5,000 miles in length, watering 2,000,000 acres. These irrigation works have cost $10,000,000. Grazing is the foremost industry of Wyoming, whose cattle and sheep find capital nutriment in the bunch-grass of the Laramie Plains, the Big-Horn Basin, the Sweetwater and Wind-River valleys and along Green River, and also in the sage-brush of the desert. The live-stock business began here in 1870, and at one time 2,000,000 cattle were grazing on these plains. In 1885 this industry represented three-quarters of Wyoming's wealth; now it is less than half of it. The herds are smaller and more numerous than before, and greater care is taken to shelter and feed them in winter. The number of cattle exceeds 1,500,000. The State has 1,000,000 sheep grazing all the year out on the plains. During severe storms it is necessary to feed them for a few days. Horse-raising is growing rapidly, and the State has 150,000 head, including many thoroughbreds. The live-stock interests represent investments of $100,000,000.

The Climate is cool and bracing in summer, and quite severe during winter months, in the higher altitudes. The dry atmosphere, however, very much lessens the severity of the cold. Very little rain falls, the average yearly fall at Fort Laramie being 14½ inches; and at Fort Bridger 8½. The summer winds are southerly; those of winter come from the north and northwest. In common with other neighboring States, Wyoming is subject to occasional winter blizzards, when the thermometer falls rapidly to far below zero, and snowy and sleety winds sweep across the prairies with irresistible fury. On the Great Plains the atmosphere is dry, rare and clear, with but little rain and great extremes of temperature. The influence on the human system is bracing and healthful.

CHEYENNE: UNION STATION.

Mining employs several thousand men in Wyoming, although the larger part of the State remains undeveloped. The gold placers of the Sweetwater were discovered in 1867, and for several years produced rich results. The recent developments in quartz-mining in this locality are very encouraging. $5,000,000 in bullion has been taken from Fremont County alone. Emile Granier's French syndicate has expended over $100,000 preparatory to commencing hydraulic operations on the placers near Atlantic City, in Fremont County. Other mines of gold and silver have been discovered from time to time in almost

every county in the State, but the product now is small. The coal mines at Almy, Evanston, Rock Springs, Dana, and various points along the Union Pacific, dispose of most of their product to the railroad. It is a lignite, containing 50 per cent. of carbon, and occurs in all parts of the Territory. The Wyoming coal mined yearly exceeds 2,000,000 tons, valued at $5,000,000. The coal region covers 30,000 square miles. Some of the deposits contain an excess of water or of sulphur, and though valuable for steam purposes in manufacturing, is not adapted for domestic uses. Valuable deposits of coking coal have recently been developed at Newcastle, Wyoming, and has been pronounced by experts equal to the best found in Pennsylvania. Petroleum has been developed over a belt 300 miles long, but the wells are plugged, awaiting the coming of better transportation facilities. The chief wells, in the Shoshone Basin, near Lander, and on the Belle-Fourche, yield a heavy black oil, which accumulates in ponds, wherein wild ducks and other birds are caught like flies on sticky paper. Iron Mountain, 52 miles north of Cheyenne, is a mass of red hematite ore seven miles long. The red-oxide mineral-paint of Rawlins has been largely used by the Union Pacific, and its superior quality caused it to be recommended and used in New-York City, on the East-River Bridge and the elevated railroads. Vein tin and stream tin are found in the Wyoming Black Hills, and copper and iron mines are in operation in the Platte Cañon, at Hartville, and elsewhere. On the Laramie Plains and in other localities occur several soda lakes, with deposits of sodium sulphate of from ten to 40 feet thick. These products are manufactured into merchantable soda at chemical works in Laramie. The saline springs, 30 miles south of Sundance on Salt Creek, have produced large quantities of salt. Among the other mineral treasures are gypsum and mica, marble and granite, graphite and cinnabar, limestone and magnesium, kaolin and fire-clay, glass-sand and asbestos. Gray and white sandstone is quarried at Rawlins and Laramie, and red and pink sandstone at Glen Rock and Laramie. Saratoga, on the North Platte, has a group of hot sulphur springs, allaying rheumatism and kindred diseases, and a large hotel invites patronage. The mineral spring at Leroy has been a remedy for dyspepsia, and the soda springs of Piedmont possess medicinal virtue.

DALE-CREEK BRIDGE.

Government.—Wyoming became a State in 1890. The Capitol, at Cheyenne, contains 60 apartments, in a handsome new sandstone building, with a Corinthian portico and a high dome. The State Library numbers 15,000 volumes. The Wyoming National Guard has well-disciplined companies at Laramie and Cheyenne. The Institution for the Deaf, Dumb and Blind is at Cheyenne. The Insane Asylum, at Evanston, has a commodious brick and stone building. The Penitentiary is a substantial structure of stone and iron at Rawlins. The United-States Penitentiary at Laramie has about twenty inmates. It has recently been enlarged and will now comfortably accommodate 150 convicts. The prison, on admission of Wyoming, was made a gift to the State, and will probably become the permanent Penitentiary, when the institution at Rawlins will be converted into a reform school.

Fort D. A. Russell, three miles northwest of Cheyenne, is the chief garrison in the Department of the Platte, with long lines of brick barracks and a garrison of ten companies of infantry. Fort McKinney, two miles from Buffalo, at the base of the Big-Horn Mountains, is a four-company post. Fort Washakie, fifteen miles from Lander, on Wind River, commands the Shoshone Agency. There are garrisons at Camp Pilot Butte, near Rock Springs, and Camp Sheridan, in the National Park. Forts Bridger, Laramie, Halleck, Phil Kearney, Stambaugh, Fetterman and Sanders have been abandoned.

Education is compulsory, and there is very little illiteracy. $1,000,000 have been spent on the erection of schools. The University of Wyoming, opened at Laramie in 1887, occupies a handsome and spacious stone building, heated by steam and lighted by electricity. It has a large land-grant from the General Government; and tuition is gratuitous. There are Catholic academies at Cheyenne and Laramie City and on the Shoshone Reservation.

Religion is represented by many prosperous societies. The Catholic Diocese of Wyoming has its cathedral city at Cheyenne; and Wyoming and Idaho form an Episcopal diocese, whose bishop lives at Laramie City.

The first newspapers were the *Evening Leader*, *Daily Argus* and *Rocky-Mountain Star*, all published in Cheyenne in 1867, and followed by the *Sweetwater Miner*, founded at Fort Bridger in 1868. There are now four daily newspapers in Cheyenne and Laramie City, and 22 weekly papers (including two agricultural) at Buffalo, Cheyenne, Douglas, Evanston, Glenrock, Lander, Laramie City, Lusk, Rawlins, Rock Springs, Sheridan and Sundance.

Chief Cities.—Cheyenne, the capital of Wyoming, is 6,075 feet above the sea, at the foot of the Rocky Mountains, twelve miles from Colorado and 40 miles from Nebraska, and gathers into her arms four railways, with large car-shops and handsome stations. In 1867 the first rude village rose on this site, where now stands an ambitious modern city, with costly water-works and sewerage systems, electric lights and telephones, street-cars and factories. It is the supply point for a broad stock-raising country and the headquarters of wealthy cattle companies. Cheyenne is 1,918 miles from New-York, 1,348 from San Francisco and 1,432 from Galveston.

Laramie City has the finest situation of any Wyoming settlement, and is a supply point for widely scattered ranches and mines, with large machine-shops, rolling-mills, glass-works and other industries, telephones, electric lights, water-works, capital schools and prospering churches. Laramie is named after a French trapper, killed by the Arapahoes on the stream which bears his name.

Rawlins, 7,000 feet above the sea, has large machine-shops, costly public buildings and a wide-reaching country trade. Rock Springs is famous for its great coal-mines. Evanston, an ambitious city on Bear River, thrives by the same industry.

The Railroads of Wyoming are the Union Pacific, crossing the southern part for 489 miles, from Nebraska to Utah; the Cheyenne & Northern, from Cheyenne, 125 miles north, to Douglas (near Fort Fetterman); the Oregon Short Line, from Granger to Idaho (and Oregon); the Denver Pacific and the Cheyenne & Burlington, running south and southeast from Cheyenne; and the Laramie, North-Park & Pacific, southwest from Laramie City.

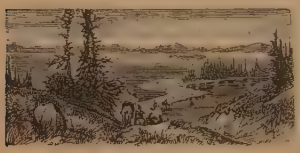
The Wyoming Central line runs 130 miles westward from Nebraska through an agricultural and mining country, to Casper, in a region of oil-wells, soda-lakes and grazing plains. This is a section of the Chicago & Northwestern system; and is to be extended to Ogden, Utah. The Chicago, Burlington & Quincy line has just built a route 200 miles long, from Alliance (Neb.) into the coking-coal region of the Black Hills, near New Castle, large areas of which are owned by the Burlington.

Among the lines under construction are the Union Pacific & Western Colorado, from Fort Steele, southeast, into Colorado; the Wyoming & Midland, from Lander north down the Big-Horn Valley to the Northern Pacific; and the Wyoming Southern, from Casper to Buffalo and Sheridan and into Montana.

The Union Pacific Railroad traverses the southern part of Wyoming for 454 miles, and the chief cities of Wyoming and the developed wealth of the State are located along this line of railroad. The line crosses the Laramie range at Sherman, 8,269 feet above the sea, and beyond Fort Fred Steele it runs along the desert table-lands whence the Green River flows down to the Colorado, and the Bear River to the Great Salt Lake. At Sherman the Union Pacific Company has erected a granite pyramid 65 feet high, to the memory of Oakes Ames and Oliver Ames, of Massachusetts, to whose labors the completion of the railroad was so largely due.

YELLOWSTONE NATIONAL PARK, IN WYOMING.

The Yellowstone National Park covers a rectangle of 3,575 square miles, nearly all in northwestern Wyoming. It is a lofty and billowy plateau, 8,000 feet above the sea, nearly as large as Connecticut, covered with dense forests of Douglas spruce and yellow pine, and broken by isolated groups of mountains. The whole region is overlaid with lava and dotted with geysers and hot springs, depositing iron, silica, lime and sulphur, and bursting forth on nearly every square mile, in the woods and along the peaks, and even boiling up in the lakes. These are the largest geysers in the world, exceeding those of Iceland or New Zealand; and their variety of action, character and power is wonderfully interesting. There are more geysers and hot springs in this reservation than in any other region of thermal activity, and yet they are but the diminishing remnant of the fiercer volcanic energies of past ages.


YELLOWSTONE LAKE.

The Park is too high and too cold for successful farming, and its volcanic character forbids profit in mining. The domain has therefore been reserved as a museum of mineralogical curiosities, with variegated obsidian cliffs, sulphur and alum and soda springs, pitchstone plateaus, the brilliantly colored basins of dead geysers, hills of sulphur, vivid cliffs of glassy rock, paint-pots and crater hills. This diversity of scenes gives an interest to the Park different from that of other resorts, for the amazed visitor passes from one unique object to another, for days, observing the rarest curiosities of Nature, and surrounded at times by a barbaric pageant of color, with roaring rivers, sunlit lakes, profound forests and lines of snowy peaks. Along the slopes of Amethyst Mountain hundreds of petrified trees stand like columns of ruined temples, many of them of great size and in good preservation. A prostrate trunk is found 60 feet long and six feet thick, completely opalized or agatized, and filled with beautiful crystals.

The huge and serrated snowy ranges which traverse the reservation include a long and singularly curving extent of the Continental Divide, sheltering lovely valleys and parks, sylvan streams and quiet lakes, and cut deeply by profound cañons. Intricate and almost impassable ranges of mountains hinder approach from the Wyoming settlements, and the only easy routes of entrance are from Montana and Idaho. Mt. Washburne, a fragment of an extinct volcano, reaching a height of 10,346 feet, is ascended by a bridle-path, and commands a good view over the long ranges of peaks in every direction and across the shining levels of Yellowstone Lake. The Gallatin Range enwalls the Park on the northwest, culminating in Electric Peak, 11,100 feet high; and the eastern wall of the Park is the magnificent Absaroka Ridge, reaching a height of 11,000 feet, and practically impassable. In the south the Red Mountains culminate in Mount Sheridan, 10,385 feet high, viewing an area of 70,000 square miles, including 470 mountains of the first class, and wide areas of Montana, Idaho and Utah. The outlooks from the highlands are of unusual extent and grandeur on account of the purity and clearness of the mountain air.

YELLOWSTONE PARK: PALACE BUTTE.

The Park has 6,000 hot springs and rents, generally at 165° to 170°, the chief groups being the Mammoth and other lime springs, on Gardiner River, and the siliceous springs on Upper Firehole River, between 30 and 40 miles south. They are practically volcanoes of water, and vary from quiet hot pools of perfect transparency to jets of 200 feet high, shot up by the force of steam gathering in the cavities below ground, and roaring like entrapped thunderstorms. These huge fountains give forth clouds of steam and vapor, accompanied by awful rumblings and explosions, recalling the time when the whole Yellowstone basin was a vast crater containing a thousand lesser volcanic

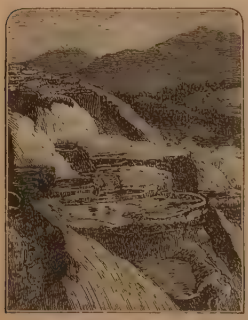
vents and fissures. As Professor Hayden says, the banks are "literally honeycombed with springs, pools and geysers that are constantly gurgling, spitting, steaming, roaring and exploding."

The Mammoth Hot Springs break out on Terrace Mountain, the chief one being 25 by 40 feet in area; and descend the hill-slope from a height of 1,000 feet, over an area of 2½ square miles of snow-white calcareous deposits, like a series of frozen cascades. As they near the level of Gardiner River they flow from the top of a travertine hill 200 feet high, falling outward through a series of richly tinted scolloped basins, and cooling as they descend. The waters are of a turquoise-blue tint and marvellously transparent, and nourish a delicate and highly colored vegetation. The spectacle-shaped valley of the Firehole River, 36 miles distant, contains thousands of hot springs and vents, pouring out clouds of steam, and fifty active geysers, some intermittent, and others perpetually emitting columns of water, sometimes as high as 250 feet. Every hour "Old Faithful" throws a boiling jet 160 feet into the air, and the Castle Geyser once every 48 hours ejects from its castellated mount of deposits a huge column of water 100 feet high. The Grand Geyser sends up a massive jet of hot water 25 feet thick at the base and 200 feet high, breaking at the top into cascades of jewel-like spray, with great vapor clouds above. The Fan, Giant, Giantess, Bee-hive and other geysers are not less amazing. The most wonderful group of geysers in the world is the Upper Geyser Basin, running along the Firehole River for several miles and less than a mile wide. It includes 414 boiling springs and hundreds of others, and 26 great geysers. The Lower Geyser Basin, farther down the Firehole, contains 693 boiling springs and six interesting geysers. Northeast of the Geyser Basin opens the Gibbon Paint-pot Basin, containing 500 springs of highly colored boiling mud, not far from the fine cañon and falls on the Gibbon River. Farther north is Norris Basin, with its vigorous geysers, the Monarch and the Hurricane. There are also a great number of mud springs, varying from bowls of turbid water to craters of seething mud 100 feet across, with sulphur and iron coloring them beautiful yellows and pinks. A group of mud springs, as thick as paint, breaks out near the Yellowstone, above the falls, with a geyser which formerly shot boiling mud forty feet high. Near the Sulphur Hills clusters of boiling sulphur springs ceaselessly pour forth floods of ill-savored medicinal waters. The Heart-Lake geysers are celebrated for their brilliant deposits; and Shoshone Lake also has its group of hot roaring fountains. This region abounds in rain, which gives it several fine rivers and beautiful mountain-bordered lakes. Here are the sources of the great Missouri and Columbia rivers, whose waters seek the sea on opposite sides of the continent. Green River, the head of the Colorado of the West, rises in the Wind-River Mountains, a few miles south of the Park. The Yellowstone begins its course in the Absaroka Range and flows through Yellowstone Lake and then out to the northward, gently enough for ten miles, widening around pretty islands, and then rushing and whitening down to a cliff 140 feet high, over which it falls in a magnificent snowy curve, reaching the rocks below fifteen feet outside of the base of the precipice. The Great Falls of the Yellowstone are a quarter of a mile below, where the fretted stream takes a leap of 308 feet, a huge mass of sea-green water, fringed and flecked with spray and foam, and thundering into a dark pool enwalled by cliffs 900 feet high. The Grand Cañon of the Yellowstone begins below the falls, and is a score of miles long, and from 600 to 1,200 feet deep, cut in the volcanic plateau, with ragged enwalling cliffs of vivid red and brown, yellow and white, brilliant as the colors in

GREAT FALLS OF THE YELLOWSTONE.

a paint-box, and flecked by the vapors of hot springs and the cascades of entering brooks. These lines of rocks are lifted up into singular shapes, as of castle towers and cathedral arches, pinnacles and spires, minarets and domes, and other mimicries of human architecture; and below the drapery of dark-green pine forests, at their bases, the silvery river winds swiftly away toward the open country.

The stories told by the old Yellowstone trappers about this region were received with disbelief, until 1863, when Capt. De Lacy explored the Lower Geyser Basin. In 1869 two Montana prospectors visited the geysers; and in 1870 a more thorough reconnaissance was made by Surveyor-General Washburne of Montana. After Dr. Hayden's scientific explorations had more fully revealed its wonders, Congress reserved the domain from settlement, in 1872. In subsequent years army officers and geological expeditions have carefully examined and mapped this land of wonders. It is now visited yearly by about 6,000 tourists, coming up the Yellowstone Valley on a branch of the Northern Pacific Railroad to Cinnabar, which is within six miles of the Mammoth Springs; or leaving the Utah Northern line at Beaver Cañon, 110 miles from Firehole Basin. Stages run to the Park from both these stations, and stop at the hotels, which are managed by the Yellowstone-Park Association, under certain restrictions of the Government. The Park is policed by two companies of the 1st U.-S. Cavalry, to prevent mutilation of the geysers, wanton destruction of game and the burning of the forests. The best months for a visit are July, August or September, and even then the nights are frosty. The Government protects game within this great holiday reservation by stringent laws; and deer and antelope, elk and moose, wolves and foxes, big-horns and coyotes, and many other wild animals increase and multiply within these vast forests. There are also grizzly, cinnamon, black, silver-tipped, smut-faced and silk bears; and in the remoter valleys small herds of buffalo may be found. The rapid extermination which is befalling many species of the larger animals of the West is arrested here, and the Park will be a museum of the saved remnant of otherwise extinct races.



MAMMOTH HOT SPRINGS.

The deep and far-winding Yellowstone Lake is shaped like a hand, with a huge thumb and misshapen fingers. It has a length of 20 miles and a width of 15 miles, with a shore-line of 112 miles, lying upon the crest of the continent, 7,440 feet above the sea, under rugged, gray and snow-capped mountains. The lake is always placid at morning, but later a strong west wind rises and covers the water with white-caps, throwing also a booming surf along the eastern shore and against the pine-clad promontories and islands. This gem of emerald green set amid dark volcanic mountains has pure and cold water, and is bordered on the south and west by heavy pine-forests and on the north and east by grassy prairies, running up to the base of a line of peaks 10,000 feet high, clad with snow until far in the summer. Half a mile south, and only 300 feet above the lake, is the crest of the Continental Divide.

Elsewhere in the Park are the beautiful Shoshone and Lewis lakes, the sources of the Snake River, whose waters flow to the Columbia and the Pacific Ocean through hundreds of leagues of lava-faced cañons.

Heart Lake also sends its shining stream from near Mt. Sheridan to join this river, which then pours through Jackson Lake, close under the huge Têton Range. Along the eastern side of Jackson Lake is the valley known to the old-time trappers as Jackson's Hole, and used as a winter rendezvous. There are noble falls on the Madison, Gibbon, Firehole and Gardiner rivers; and in the emerald pools about them dwell countless trout. Tower Creek runs from Mt. Washburne to the lower part of the Grand Cañon, with a series of wonderful falls, cañons, rocky towers, basaltic palisades and sulphur springs.

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The Cover Pages Represent Nature in the North (lining the front cover), with the amazing white plunge of Niagara Falls, and a lonely and mountain-walled Adirondack lake, the tall white pines of Michigan, the graceful red deer, and the far-soaring American eagle.

Nature in the South (facing the inside front cover), with a scene on the Ocklawaha River, in Florida, surrounded by the palms and palmettoes, and the luxuriant vegetation of the semi-tropical States. Here also appear the alligator of the Gulf coast and the white pelican of Louisiana.

Nature in the East (facing the back cover), is illustrated by an inspiring scene from the coast of Maine, and the famous Profile (or Old Man of the Mountain) from the White Mountains of New Hampshire. The great New-England moose appears in the foreground, with the bending fronds of the golden rod about him, and over all arches the magnificent American elm.

Nature in the West (the last cover-page) is typified by the wonderful Yosemite Valley of California, the gigantic Sequoyahs (or big trees) of Calaveras, Colorado's Mountain of the Holy Cross, and the weird cacti and yucca palms of Arizona. Amid these scenes appear the big-horn sheep of the Sierra Nevada, and the grizzly bear of the Coast Range.

Additional Statistics.

The groundwork of the Handbook of the United States is the National census of 1890. Nothing can take the place of that authority till long after the close of this century. Some States took a census in 1895, and almost every large and growing city in the country has had enumerations of one kind or another. None of these enumerations, however, are considered as authority, nor has it been thought well to incorporate such results in the body of a work intended to be authoritative; but in order to give the readers of the Handbook the fullest information available up to 1896, the results of the latest of these enumerations and the most conservative estimates, together with the reports of the Government Departments, are here embodied in tabular form. A special full set of the statistics of agriculture in every State for the year 1895 was furnished by the Department at Washington for this purpose, and is of great value and interest. In every instance where reference is made to the year 1890, the official corrected returns of the United States census are used.

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Total vote cast at last Presidential election (in 1892)	12,150,274
Army (in 1895).	
Enlisted men and officers	25,706
Disciplined militia, 1894	141,365
Navy (in 1895).	
Officers and sailors 13,500	
Marines 1,100	14,600
Ships in commission	64
Ships under construction	26
Post-offices, July 1, 1895	70,064
Railroads (miles), 1895,	179,279
Net National Debt, Jan'y 1, 1896	$905,770,687
Newspapers and periodicals, 1896	21,225

POPULATION OF CHIEF CITIES.

	Estimated, 1895.	1890.
New York	2,000,000	1,515,301
Chicago	1,750,000	1,099,850
Philadelphia	1,350,000	1,046,964
Brooklyn	1,150,000	806,343
St. Louis	600,000	451,770
Boston	500,000	448,477
Baltimore	500,000	434,439
Cincinnati	365,000	296,908
San Francisco,	350,000	298,997
Buffalo	350,000	255,664
Cleveland	345,000	261,353
Detroit	300,000	205,876
Washington	280,000	230,392
New Orleans	275,000	242,039
Pittsburg	275,000	238,617
Milwaukee	275,000	204,468
Newark	215,000	181,830
Louisville	200,000	161,129
Minneapolis	195,000	164,738
Jersey City	185,000	163,003
Omaha	160,000	140,452
Rochester	160,000	133,896
Providence	160,000	132,146
Kansas City, Mo.	150,000	132,716
Indianapolis	150,000	105,436
St. Paul	145,000	133,156
Denver	140,000	106,713
Toledo, O.	125,000	81,434
Allegheny	120,000	105,287
Syracuse	115,000	88,143
Scranton	110,000	75,215
Atlanta, Ga.	110,000	65,533
Columbus, O.	110,000	88,150
Memphis, Tenn.	105,000	64,495
New Haven, Ct.	100,000	81,298
Richmond, Va.	100,000	81,388
Worcester, Mass.	100,000	84,655
Albany, N. Y.	100,000	94,923
Paterson, N. J.	100,000	78,347

ALABAMA. PAGE 27.

Counties	66
Population, 1896 (estimated)	1,600,000
Total vote cast, 1892	232,755
For Cleveland, D.	138 138
" Weaver, Pop.	85,181
" Harrison, R.	9,187
Total vote cast, 1894	194,148
For Oates, D.	110,865
" Kolb, Pop.	83,283
Governor, Wm. C. Oates Term expires Dec. 1, 1896.	
U. S. Representatives, 1896,	9
Democrats	8
Populists	1
Post-offices, 1895	2,209
Railroads (miles), 1895,	3,633
Manufactures	$51,226,605
Operatives	33,821
Yearly wages	$12,676,029
Farm Products, 1895.	
Corn	44,376,487 bu. $16,419,300
Wheat	373,283 bu., $298,626
Oats	5,210,172 bu., $2,188,272
Potatoes	480,130 bu., $388,905
Hay	116,980 t's, $1,194,366
Cotton	1,000,000 bls.
School children enrolled, 1893-4	306,000
Average attendance,	185,000
Military Strength.	
Organized	2,982
Available	165,000
Newspapers, 1895	200
Annual average precipitation, 1894	47.63

POPULATION OF CHIEF CITIES.

	Estimated, 1895	1890.
Mobile	48,000	31,076
Birmingham	36,000	23,178
Montgomery	25,000	21,883

ARIZONA. PAGE 53.

Counties	10
Population, 1896 (estimated)	77,000
Total vote cast, 1894, for Congress	13,427
For Herndon, D.	4,773
" Murphy, R.	5,648
" O'Neill, Pop.	3,006
Governor, Louis C. Hughes. Term expires April 21, 1897.	
Post-offices, 1895	185
Railroads (miles), 1895	1,357
Manufactures (census of 1890)	$947,547
Operatives	528
Yearly wages	$358,127
Farm Products, 1895.	
Corn	132,730 bu., $90,548
Wheat	250,654 bu., $162,925
Barley	261,241 bu., $182,869
Potatoes	29,118 bu., $17,471
Hay	63,655 t'ns, $572,895
School children enrolled, 1893-4	11,320
Average attendance	6,921
Military Strength.	
Organized	503
Available	7,600
Newspapers, 1895	43
Annual average precipitation, 1894	10.64

POPULATION OF CHIEF CITIES.

	Estimated, 1895.	1890.
Tucson	5,000	5,150
Phoenix	4,000	3,152
Tombstone	1,900	1,875

ARKANSAS. PAGE 59.

Counties 75
Population, 1896 (estimated) 1,600,000
Total vote cast, 1892... 147,929
For Cleveland, D.... 87,834
" Harrison, R..... 46,884
" Weaver, Pop.... 11,831
Total vote cast, 1894... 126,986
For Clarke, D..... 74,809
" Remmel, R..... 26,085
" Barker, Pop..... 24,541
Governor, James P. Clarke.
Term expires Jan'y 11, 1897.
U. S. Representatives, 1896. 6
Democrats..... 6
Post-offices, 1895..... 1,706
Railroads (miles), 1895. 2,424
Manufactures $22,659,179
Operatives 15,972
Yearly wages $5,749,888
Farm Products, 1895.
Corn...50,359,558 bu., $16,115,059
Wheat. 1,452,300 bu., $856,857
Oats... 8,306,486 bu., $2,658,076
Rye.... 24,129 bu., $18,097
Potat's, 1,476,300 bu., $752,913
Hay ... 214,396 t'ns, $1,987,451
Cotton. 875,000 bales.
School children enrolled, 1893-4..... 285.159
Average attendance... 166,544
Military Strength.
Organized 1,079
Available..... 205,000
Newspapers, 1895..... 266
Annual average precipitation, 1894..... 45.02

POPULATION OF CHIEF CITIES.

	Estimated, 1895.	1890.
Little Rock	40,000	25,874
Fort Smith	16,000	11.311
Pine Bluff	14,000	9,952
Hot Springs	11,500	8,086

CALIFORNIA. PAGE 69.

Counties..... 53
Population, 1896 (estimated) 1,220,000
Total vote cast, 1892.. 269,223
For Cleveland, D ... 118,203
" Harrison, R..... 118,149
Scattering 33,481
Total vote cast, 1894... 284.547
For Budd, D..... 111.944
" Estes, R..... 110,738
Governor, James H. Budd.
Term expires Jan'y 4, 1897.
U. S. Representatives, 1896, 7
Democrats 1
Republicans. 6
Post-offices, 1895..... 1,543
Railroads (miles), 1895. 4,634
Manufactures.. .....$213,403,996
Operatives 83,642
Yearly wages $51,538,780
Farm Products, 1895.
Corn.... 2,256,852 bu., $1,196,132
Wheat, 40,097,798 bu., $24,058,679
Oats ....1,690,046 bu., $659,118
Rye ... 425,952 bu., $247,052
Barley, 19,023,678 bu., $7,609,471
Buckwh., 21,780 bu., $13,939
Potatoes, 1,888,425 bu , $906,444
Hay.... 2,791,710 t's, $19,709,473
School children enrolled, 1893-4..... 243,249
Average attendance,.. 164,664
Military Strength.
Organized 4 948
Available..... 188,072
Newspapers, 1895..... 640
Annual average precipitation, 1894..... 21.36

POPULATION OF CHIEF CITIES.

	Estimated, 1895.	1890.
San Francisco	350,000	298,997
Los Angeles	80,000	50,395
Oakland	52,000	48,682
Sacramento	32,000	26,386
San Jose	22,000	18,060
San Diego	19,000	16,159
Stockton	17,000	14,424
Alamedo	14,000	11,165
Fresno	14,000	10,818

COLORADO. PAGE 101.

Counties..... 56
Population, 1896 (estimated)..... 450,000
Total vote cast, 1892.. 93,842
For Harrison, R ... 38,620
" Weaver, Pop... and Fus..... 53,584
Total vote cast, 1894.. 177,931
For Campbell, R. (Supreme Court).. 90,845
" Mills, Pop..... 76,487
" Wilson, D..... 9,634
Governor. Albert W. McIntire.
Term expires Jan'y 19, 1897.
U. S. Representatives, 1896..... 2
Republican.....1
Populist 1
Post-offices, 1895..... 703
Railroads (miles), 1895 4,538
Manufactures $42,480,205
Operatives..... 17,067
Yearly wages.....$12,285,734
Farm Products, 1895.
Corn.....3,690,976 bu., $1,513,300
Wheat...2,808,250 bu., $1,572,620
Oats.....3,389,252 bu., $948,991
Rye..... 49,144 bu., $23,588
Barley... 447,277 bu., $268,366
Potatoes. 3,491,820 bu., $1,152,301
Hay.....1,961,187 t'ns, $11,512,168
Mineral Products, 1895.
Gold $16,995,919
Silver..... $12,353,074
Lead $3,040,514
Copper..... $928,849
School children enrolled, 1893-4..... 84,448
Average attendance 53,127
Military Strength.
Organized..... 1,621
Available..... 85,000
Newspapers, 1895..... 276
Annual average precipitation, 1894..... 13.86

POPULATION OF CHIEF CITIES.

	Estimated, 1895.	1890.
Denver	140,000	106,713
Pueblo	30,000	24,558
Cripple Creek	25,000	.....
Colorado Springs	17,000	11,140
Leadville	11,000	10,384

CONNECTICUT. PAGE 117.

Counties 8
Population, 1896 (estimated)..... 800,000
Total vote cast, 1892 .. 164,766
For Cleveland, D.... 82,395
" Harrison, R..... 77,025
Scattering 5,346
Total vote cast, 1894 .. 154,981
For Coffin, R..... 83,975
" Cady, D..... 66,287
" Pond, Pro..... 2,310
Governor, O. Vincent Coffin.
Term expires Jan. 12, 1897.
U. S. Representatives. 1896, 4
Republicans..... 4
Post-offices, 1895..... 506
Railroads (miles) 1895, 1,013
Manufactures $248,336,364
Operatives..... 149,939
Yearly wages $75,990,606
Farm Products, 1895.
Corn .....1,768,338 bu., $901,852
Oats..... 742,217 bu , $230,087
Rye ..... 263.894 bu., $166,253
Buckw't . 58,489 bu., $32,754
Potatoes .3,462,656 bu., $1,419,689
Hay 400,440 t's., $6,447,084
School children enrolled, 1893-4 136,000
Average attendance. 91,400
Military Strength.
Organized..... 2,842
Available 98,779
Newspapers 213
Annual average precipitation, 1894..... 38.47

POPULATION OF CHIEF CITIES.

	Estimated, 1895.	1890
New Haven	100,000	81,298
Hartford	65,000	53,230
Bridgeport	60,000	48,886
Waterbury	32.000	28,646
Meriden	26,000	21,652

DELAWARE. PAGE 143.

Counties..... 3
Population, 1896 (estimated)..... 185,000
Total vote cast 1892... 37,242
For Cleveland, D .. 18,581
" Harrison, R 18,083
Scattering 578
Total vote cast. 1894,.. 39,128
For Tunnel, D.* 18,659
" Marvil, R..... 19,880
" Perry. Pro..... 589
Governor, Wm. T. Watson.
Term expires Jan'y 18. 1897.
U. S. Representatives, 1896, 1
Republican. 1
Post-offices, 1895..... 169
Railroads (miles), 1895, 315
Manufactures.....$37,571,000

* Died.

Operatives..... 21,906
Yearly wages $9,892,000
Farm Products, 1895.
Corn.. 4,281,291 bu., $1,455,639
Wheat, 1,069,300 bu., $684,352
Oats .. 468,790 bu., $135,449
Potatoes, 327,758 bu., $124,548
Hay... 68 108 t's. $828,193
School children enrolled, 1893-4..... 33,100
Average attendance... 22,690
Military Strength.
Organized,..... 421
Available.... ..... 28 080
Newspapers, 1895..... 37
Average annual precipitation, 1894..... 45.43

POPULATION OF CHIEF CITY.

Estimated, 1895.	1890.
Wilmington 67,000	61 431

DIST. COLUMBIA. PAGE 149

Population, 1896 (estimated)..... 280,000
Post-offices, 1895 13
Railroads (miles) 1895 22
Manufactures $39,331,437
Operatives. 23,404
Yearly wages $14,622,260
School children enrolled, 1893-4..... 40,600
Average attendance. 31,348
Newspapers, 1895 67
Average annual precipitation, 1893-4.... 30.85

POPULATION OF CHIEF CITY.

Estimated, 1895.	1890.
Washington City.... 280,000	230,392

FLORIDA. PAGE 165.

Counties..... 45
Population, 1896 (estimated)..... ... 485,000
Total vote cast, 1892 . 35,461
For Cleveland, D... 30,143
" Weaver, Pop... 4,843
Scattering 475
Total vote cast, 1894, for Congressmen. 26,077
First District.
For Sparkman, D.. 12,379
" McKinnon, Pop. 2,135
Second District.
For Cooper, D..... 9,229
" Atkinson, Pop.. 2,334
Governor, Henry L. Mitchell. Term expires Jan'y 5, 1897.
U. S. Representatives, 1896, 2
Democrats.....2
Post-offices, 1895. . 1,013
Railroads (miles) 1895, 2,978
Manufactures $18,222,000
Operatives..... 13,920
Yearly wages..... $6,513,068
Farm Products, 1895.
Corn.....6,186,645 bu., $2,907,723
Oats .... 406,327 bu., $264,113
Potatoes. 89,925 bu., $89,925
Hay..... 10,280 t'ns, $136,004
Cotton .. 65,000 bales.
School children enrolled, 1893-4..... 96,700
Average attendance 64,130
Military Strength.
Organized..... 1,011
Available..... 60,714
Newspapers..... 146
Annual average precipitation, 1894..... 50.71

POPULATION OF CHIEF CITIES.

Estimated, 1895.	1890.
Jacksonville....30,000	17,201
Key West... ...23,000	18,080
Pensacola.....15,000	11,750

GEORGIA. PAGE 177.

Counties..... 137
Population 1896 (estimated) 1,984,930
Total vote cast, 1892.. 223,946
For Cleveland, D.... 129,361
" Harrison, R.... 48,305
" Weaver, Pop ... 42,937
" Bidwell, Pro.... 988
Scattering 2,355
Total vote cast, 1894 . 217,937
For Atkinson, D..... 121,049
" Hines, Pop. 96,888
Governor, Wm. Y. Atkinson. Term expires, Nov 1, 1896.
U. S Representatives, 1896, 11
Democrats.....11
Post-offices, 1895..... 2,326
Railroads (miles) 1895. 5,140
Manufactures $68,917,000
Operatives 56,380
Yearly wages ... $17,312,190
Farm Products, 1895.
Corn. ..42,172,481 bu., $17,290,717
Wheat . 1,330,706 bu., $1,091,179
Oats ... 6,679,048 bu., $3,072,362
Rye.. . 138,809 bu., $117,988
Potat's. 364,066 bu., $258,487
Hay.. . 236,541 t's, $2,578,297
Cotton . 1,200,000 bls ,
School children enrolled, 1893-4..... 436 680
Average attendance 262,000
Military Strength.
Organized 4,194
Available 264,021
Newspapers, 1895 311
Annual average precipitation..... 49 75

POPULATION OF CHIEF CITIES.

Estimated, 1895.	1890.
Atlanta . 110,000	65,533
Savannah 70,000	43,189
Augusta. 40,000	33,300
Macon..... . 25,000	22,746

IDAHO. PAGE 193.

Counties 18
Population, 1896 (estimated) 130,000
Total vote cast, 1892... 19,407
For Harrison, R. .. 8,599
" Weaver, Pop.... 10,520
Total vote cast, 1894... 24,386
For McConnell, R.... 10 208
" Stevenson, D.... 7,057
" Ballantine. Pop. 7,121
Governor, Wm. J. McConnell. Term expires Jan'y 1, 1897.
U. S. Representatives, 1896, 1
Republicans. 1
Post-offices 1895 330
Railroads (miles) 1895, 1,089
Manufactures.....$1 396,096
Operatives. 774
Yearly wages..... $324,202
Farm Products, 1895.
Corn.. 50,839 bu., $31,520
Wheat, 1,221,899 bu., $574,293
Oats.. 1,102,358 bu., $319,684
Barley, 259,847 bu., $109,136
Potatoes, 408,240 bu., $163,296
Hay.... 459,598 t's, $2,872,488
School children enrolled, 1893-4..... ... 24,260
Average attendance... 16,000
Military Strength.
Organized.. 304
Available 13,932
Newspapers, 1895..... 257
Annual average precipitation, 1894 .... 19.26

POPULATION OF CHIEF CITY.

Estimated, 1895.	1890.
Boise City.....5,000	2,311

ILLINOIS. PAGE 201.

Counties 102
Population, 1896 (estimated)..... 4,500,000
Total vote cast, 1892.. 873,646
For Cleveland, D... 426,281
" Harrison, R.... 399,288
Scattering..... 48,077
Total vote cast, 1894.. 849,266
For Clagget, D.(State Treasurer)... . 322,459
" Wulff, R..... 445,886
" Randolph, Pop. 59,793
" Puterbaugh, Pro. 19,475
Governor, John P. Altgelt. Term expires Jan'y 11, 1897.
U. S. Representatives, 1896. 22
Republicans.....20
Democrats..... 2
Post-offices, 1895..... 2,537
Railroads (miles), 1895, 10,564
Manufactures $908,640,280
Operatives..... 312,198
Yearly wages $171,523,579
Farm Products, 1895.
Corn.. 255,136,554 bu., $56,130,042
Wheat, 19,060,712 bu., $10,102,177
Oats . 73,707,130 bu., $12,530,212
Rye... 1,700,287 bu., $680,115
Barley, 352,900 bu., $158,805
Buckwh., 97,303 bu., $42,813
Potat's, 13,749,197 bu., $4,124,759
Hay... 1,319,133 t's, $13,521,113
School children enrolled, 1893-4..... 855,930
Average attendance... 565,107
Military Strength.
Organized..... 5,313
Available 700,000
Newspapers. 1895..... 1,532
Annual average precipitation, 1894 ..... 28.77

POPULATION OF CHIEF CITIES.

Estimated, 1895.	1890.
Chicago 1,750,000	1,099,850
Peoria 63,000	41,024
Quincy 35,000	31,494
Springfield.....35,000	24,963
Joliet 34,000	23,264
Rockford 33,000	23,584

INDIANA. PAGE 233.

Counties..... 92
Population, 1896 (estimated) 3,135,300
Total vote cast, 1892... 552,004
For Cleveland, D 262,817
" Harrison, R..... 253,929
" Weaver, Pop.... 22,208
" Bidwell, Pro.... 13,050
Total vote cast, 1894... 562,682
For Myers, D. (Sec'y of State)..... 238,732
" Owen, R. 283,405
" Taylor, Pro..... 11,157
Governor, Claude Matthews. Term expires Jan'y 9, 1897.
U. S. Representatives, 1896, 13
Republicans.....13
Post-offices, 1895..... 2,178
Railroads (miles), 1895, 6,390
Manufactures $226,825,080
Operatives..... 124,349
Yearly wages $51,749,976
Farm Products, 1895.
Corn.. 121,435,768 bu.,$27,930,227
Wheat, 20,294,492 bu.,$11,567,860
Oats.. 25,895,595 bu , $5,179,119
Rye... 633,949 bu., $266,259
Barley, 102,165 bu , $40,866
Buckwh., 85,743 bu., $49,731
Potatoes,6,945,576 bu., $2,153,129
Hay... 955,725 t's, $11,497,372
School children enrolled, 1893-4 541,570
Average attendance... 392,680
Military Strength.
Organized..... 2,581
Available..... 481,192
Newspapers, 1895..... 791
Annual average precipitation, 1894..... 30.88

POPULATION OF CHIEF CITIES.

	Estimated, 1895.	1890.
Indianapolis	150,600	105,436
Evansville	58,000	50,756
Fort Wayne	43,000	35,393
Terre Haute	34,000	30,217
South Bend	25,000	21,819
New Albany	24,000	21,059
Richmond	19,000	16,608
Lafayette	18,000	16,243

INDIAN TER'Y. PAGE 246.

Post-offices 419
Railroads (miles), 1895, 955
Manufactures..... $248,932
Operatives..... 175
Yearly wages..... $79,830
Newspapers 39
Annual average precipitation..... 30.51

POPULATION OF CHIEF CITIES.

	Estimated 1895.	1890.
McAlester	4,000	3,025
Muskogee	3,000	2,025
Purcell	3,000	2,025
Telequa	2,400	1,225

IOWA. PAGE 253.

Counties 99
Population, 1896 (estimated).... 2,000,000
Total vote cast, 1892. 443,054
For Harrison, R..... 219,688
For Cleveland, D.... 196,458
" Weaver, Pop.... 20,568
" Bidwell, Pro.... 6,340
Total vote cast, 1895.. 401,292
For Drake, R 208,689
" Babb, D..... 149,433
" Crane, Pop..... 32,118
" Bacon, Pro..... 11,052
Governor, F. M. Drake. Term expires Jan. 3, 1897.
U. S. Representatives 1896. 11
Republicans 11
Post-offices..... 1,831
Railroads (miles) 1895. 8,508
Manufactures.....$125,049,183
Operatives..... 59,174
Yearly wages $25,878,997
Farm Products, 1895.
Corn..298,502,650 bu., $53,730,477
Wheat, 13,654,778 bu., $6,281,198
Oats..182,967,338 bu., $25,615,427
Rye... 1,554,970 bu., $482,041
Barley, 12,684,868 bu., $2,917,520
Buckwh't,223,898 bu., $111,949
Potat's,21,340,980 bu., $4,054,786
Hay... 4,612,583 t's., $29,751,141
School children enrolled, 1893-4..... 522,731
Average attendance, 331,408
Military Strength.
Organized..... 2,478
Available 269,510
Newspapers, 1895 979
Annual average precipitation..... 20.19

POPULATION OF CHIEF CITIES.

	State Census, 1895.	1890.
Des Moines	56,359	50,093
Dubuque	40,574	30,311
Davenport	30,010	26,872
Sioux City	27,371	37,806
Burlington	25,246	22,565
Clinton & Lyons	23,377	20,457
Cedar Rapids	21,555	18,020
Council Bluffs	20,189	21,474
Clinton	17,375	14,658
Ottumwa	16,761	14,001

KANSAS. PAGE 263.

Counties..... 106
Population, 1896 (estimated) 1,350,000
Total vote cast, 1892 .. 323,798
For Weaver..... 163,111
" Harrison 156,134
" Bidwell 4,553
Total vote cast, 1894.. 299,233
For Morrill R. ... 148,697
" Lewelling, Pop. 118,329
" Overmeyer, D... 26,709
Governor, Edmund N. Morrill. Term expires, Jan'y 11, 1897.
U. S. Representatives. 8
Republicans.....7
Populist..... 1
Post-offices, 1895. . 1,701
Railroads (miles), 1895. 8,872
Manufactures $110,219,805
Operatives..... 32 843
Yearly wages.....$16,328,485
Farm Products, 1895.
Corn . 204 759 746 bu., $61,427,924
Wheat, 22,919,566 bu., $10,313,805
Oats... 30 075,992 bu., $5,112,919
Rye... 731,830 bu., $278,095
Barley, 258,365 bu., $59,424
Buckwh't, 32,245 bu., $25,796
Potat's, 7,869,240 bu., $3,305,081
Hay.... 4,181,289 t's, $13,631,002
School children enrolled..... 393,840
Average attendance, 252,215
Military Strength.
Organized. 1,724
Available,..... 100 000
Newspapers, 1895..... 707
Annual average precipitation 24.23

POPULATION OF CHIEF CITIES.

	State Census, 1895.	1890.
Kansas City	38,316	40,673
Topeka	31,007	30,151
Wichita	23,853	20,241
Leavenworth	19,768	20,822
Atchison	15,500	31,963
Fort Scott	11,946	11,108
Lawrence	9,997	10,084

KENTUCKY PAGE 273.

Counties..... 119
Population, 1896 (estimated)..... 2,200,000
Total vote cast, 1892... 340,844
For Cleveland, D ... 175,461
" Harrison, R. ... 135,441
" Weaver, Pop.... 23,500
" Bidwell, Pro. .. 6,442
Total vote cast, 1895 .. 357,057
For Bradley, R..... 172,436
" Hardin, D..... 168,524
" Pettit, Pop..... 16,911
" Demaree, Pro... 4,186
Governor, Wm. O. Bradley. Term expires Dec'r 15, 1899.
U. S. Representatives, 1896, 11
Democrats.. 6
Republicans 5
Post-offices, 1895. ... 2,616
Railroads (miles), 1895, 3,029
Manufactures.....$126,719,857
Operatives..... 65,579
Yearly wages..... $27,761,746
Farm Products, 1895.
Corn... 93,939,331 bu.,$25,363,619
Wheat, 9,501,225 bu., $5,795,747
Oats.. 13,252,458 bu., $3,445,639
Rye... 479,978 bu., $268,788
Barley, 88,978 bu., $33,812
Potatoes,3,908,184 bu., $1,524,192
Hay... 693,718 t's, $7,589,275
School children enrolled 1893-4..... .... 467 451
Average attendance .. 268 464
Military Strength.
Organized.. 1,471
Available.....405,000
Newspapers..... 296
Annual average precipitation..... 37.20

POPULATION OF CHIEF CITIES.

	Estimated, 1895.	1890.
Louisville	200,000	161,129
Covington	50,000	37,371
Newport	28,000	24,918
Lexington	24,000	21,567

LOUISIANA. PAGE 293.

Counties..... 59
Population, 1896 (estimated) 1,225,000

Total vote cast, 1892.. 114 186
For Cleveland..... 87,622
" Harrison..... 25,332
" Weaver. 1,232
Governor, Murphy J. Foster.
Term expires April 30, 1896.
U. S. Representatives. 6
Democrats..... ...6
Post-offices, 1895 . .. 1,008
Railroads (miles), 1895 2,067
Manufactures..... $57 806,713
Operatives..... 31,901
Yearly wages $13,159,564
Farm Products, 1895.
Corn....22,574,284 bu , $9,029,714
Oats.... 575,745 bu., $207,268
Potatoes, 827,789 bu , $596,008
Hay..... 74,532 t's, $718,488
Cotton . 650,000 b'ls.
School children enrolled 155,470
Average attendance, 107,370
Military Strength.
Organized 1 249
Available 138,439
Newspapers, 1895 173
Annual average precipitation 45.91

POPULATION OF CHIEF CITIES.

Estimated, 1895.	1890.
New Orleans....275,000	242,039
Shreveport..... 15,000	11,979
Baton Rouge... 13,000	10,478

MAINE. PAGE 311.

Counties 16
Population, 1896 (estimated)..... 732,000
Total vote cast, 1892.. 116,358
For Harrison, R..... 62,871
" Cleveland, D .. 48,044
" Bidwell, Pro. ... 3,062
" Weaver. Pop ... 2,381
Total vote cast, 1894 .. 108 271
For Cleaves, R..... 69,599
" Johnson, D..... 30,621
" Hersey, Pro 2,730
" Bateman, Pop.. 5,321
Governor, Henry B. Cleaves.
Term expires, Jan. 1, 1897.
U. S. Representatives, 4
Republicans. 4
Post-offices, 1895..... 1,188
Railroads (miles), 1895 1,621
Manufactures $95,689,500
Operatives..... 75,780
Yearly wages $26,526 217
Farm Products, 1895.
Corn. .. 596,904 bu., $322,328
Wheat.. 83,808 bu . $68,723
Oats.... 5,551,484 bu , $1,887,505
Rye . 19,258 bu., $16,369
Barley.. 408,467 bu . $212,403
Buckwh't, 917,908 bu , $422,238
Potat's, 10,139,089 bu.. $3,447,290
Hay.... 1,127,031 t's.,$10,909,660
School children enrolled. 135,815
Average attendance, 90,115
Military Strength.
Organized 1,241
Available..... 98,978
Newspapers, 1895..... 184
Annual average precipitation 29.98

POPULATION OF CHIEF CITIES.

Estimated, 1895.	1890.
Portland 40,000	36 425
Lewiston 23,000	21,701
Bangor 21,000	19,103
Biddeford.....16,000	14,443
Auburn 13 000	11,250
Augusta.....12,000	10,527

MARYLAND. PAGE 321.

Counties..... 24
Population, 1896 (estimated) 1,138,348
Total vote cast, 1892... 213 275
For Cleveland, D.... 113,866
" Harrison, R..... 92,736
" Bidwell Pop 5 877
" Weaver. Pro..... 796
Total vote cast, 1895... 240,205
For Lowndes, R 124,936
" Hurst, D 106,169
" Levering, Pro... 7,719
Governor, Lloyd Lowndes.
Term expires Jan'y 8, 1900.
U. S. Representatives, 1896, 6
Republicans.....3
Democrats.....3
Post-offices 1895..... 1,175
Railroads (miles), 1895, 1 292
Manufactures.....$171,842,593
Operatives..... 107,054
Yearly wages.....$41 526 832
Farm Products, 1895.
Corn.. 1,531,205 bu., $6,116,546
Wheat, 1 800,756 bu., $4,992,484
Oats.. 2,320,010 bu., $626,403
Rye. . 379,712 bu., $186,059
Buckwh., 83,570 bu., $46,799
Potat's, 2,366,400 bu., $709,920
Hay, 436,298 t's, $5,039,242
School children enrolled, 1893-4..... 204,846
Average attendance... 116,542
Military Strength.
Organized..... 1,907
Available..... 160,000
Newspapers.. 210
Annual average precipitation 37.39

POPULATION OF CHIEF CITY.

Estimated, 1895.	1890.
Baltimore 500,000	434,439

MASSACHUSETTS. P. 339.

Counties..... 14
Population, 1896 (estimated)..... 2,495,343
Total vote cast, 1892.. 391,175
For Harrison, R .. 202,814
" Cleveland, D.... 176,813
" Bidwell, Pro.... 7,539
" Weaver, Pop .. 3,210
" Wing, Labor. .. 649
Total vote cast, 1895.. 328,121
For Greenhalge, R.. 186,280
" Williams, D..... 121,599
" Brown, Pop..... 7,786
" Kendall, Pro.... 9,170
Governor, F. T. Greenhalge.
Term expires Jan. 2, 1897.
U. S. Representatives. 13
Republicans 12
Democrat. 1
Post-offices, 1895 865
Railroads (miles), 1895 2,124
Manufactures.. .....$888,160,403
Operatives..... .. 485,182
Yearly wages.....$239,670,509
Farm Products, 1895.
Corn.....1,847,224 bu., $960,556
Oats ... 549,864 bu., $186 954
Rye.. ... 205,806 bu., $137,890
Barley... 41,378 bu., $26,896
Buckwh t, 37,470 bu., $22,107
Potatoes,4,303,082 bu., $2 065,479
Hay. .. 649,838 t's.,$11,372,165
School children enrolled..... 400,609
Average attendance, 299,069
Military Strength.
Organized. 6,006
Available 389,529
Newspapers, 1895..... 657
Annual average precipitation 41.89

POPULATION OF CHIEF CITIES.

Estimated, 1895.	1890.
Boston. 500,000	448,477
Worcester.... .100,000	84,655
Fall River 90,000	74,398
Lowell 84,300	77,696
Cambridge..... 83,000	70,028
Lynn..... 62,000	55,727
New Bedford... 55,000	40,733
Somerville.. .. 54,000	40,152
Lawrence 53,000	44,654
Springfield.... 52,000	44,179
Holyoke 40,000	35,637

MICHIGAN. PAGE 401.

Counties 85
Population, 1896 (estimated)..... 2,297,000
Total vote cast, 1892... 459,505
For Harrison, R 222,708
" Cleveland, D.... 202,296
" Weaver, Pop.... 19,892
" Bidwell, Pro..... 14,609
Total vote cast, 1894.... 416,838
For Rich, R..... 237,215
" Fisher, D..... 130,823
" Nichols Pop..... 30,012
" Todd, Pro..... 18,788
Governor, J. T. Rich.
Term expires Dec'r 31, 1896.
U. S. Representatives, 1896, 12
Republicans.....12
Post-offices, 1895..... 1,991
Railroads (miles), 1895 7,474
Manufactures.....$277,896,706
Operatives..... 163,941
Yearly wages $66,847,798
Farm Products, 1895.
Corn.. 33,600,242 bu.,$10,752,077
Wheat, 15,237,803 bu., $9,142,682
Oats.. 23,265 192 bu., $5,350,994
Rye... 1,491,254 bu., $596,502
Barley, 1 255,344 bu., $539,798
Buckwh., 629,314 bu., $270,605
Potat's, 23,916,497 bu., $3,826,640
Hay. . 720,968 t's, $9,437,471
School children enrolled, 1893-4..... 468,979
Average attendance...286,077
Military Strength.
Organized..... 2,878
Available..... 260,000
Newspapers, 1895 741

Annual average precipitation..... 31.71

POPULATION OF CHIEF CITIES.

Estimated, 1895.		1890.
Detroit	300,000	205,876
Grand Rapids	90,000	60,278
Saginaw	45,000	46,322
Bay City	33,000	27,839
Jackson	24,000	20,798
Muskegon	24 000	22,702
Kalamazoo	22,000	17,853
Adrian	10,000	8,756

MINNESOTA. PAGE 419.

Counties..... 80
Population, 1896 (estimated)..... 1,610,000
Total vote cast, 1892... 266,611
For Harrison, R..... 122,736
" Cleveland, D.... 100,579
" Weaver, Pop ... 29,279
" Bidwell, Pro... 14,017
Total vote cast, 1894 .. 296,355
For Nelson, R..... 147,944
" Becker, D..... 53,579
" Owen, Pop.. .. 87,931
" Hilleboe, Pro... 6,879
Governor, D. M. Clough. Term expires Jan. 1, 1897.
U. S. Representatives. 7
Republicans 7
Post-offices, 1895..... 1,396
Railroads (miles), 1895 6,039
Manufactures..... $792,033,478
Operatives..... 79,629
Yearly wages ... $38,189,239
Farm Products, 1895.
Corn...35,956,690 bu., $7,191,338
Wheat.65,584,155 bu., $28,857,028
Oats....77,995,084 bu., $10,919,312
Rye .. 1,485 588 bu., $415,965
Barley.17,437,324 bu., $4,181,948
Buckwh't,279,500 bu., $142,545
Potat's,23,991,036 bu., $3,358,745
Hay. 2,011,768 t's. $10,453,802
School children enrolled. 337,861
Average attendance. 209,307
Military Strength.
Organized..... 1,900
Available..... 160,000
Newspapers, 1895.. .. 554
Average annual Precipitation.. . ..... 24.61

POPULATION OF CHIEF CITIES.

Estimated, 1895.		1890.
Minneapolis	192,833	164,738
St. Paul	140,292	133,156
Duluth	59,396	33,115
Winona	20,649	18,208
St. Cloud	16,669	7,686
Stillwater	12,004	11,260
Mankato	10,173	8,838

MISSISSIPPI. PAGE 437

Counties..... 75
Population, 1896 (estimated)..... 1,351,850
Total vote cast, 1892... 52,809
For Cleveland, D.... 40,237
" Harrison, R..... 1,406
" Weaver, Pop 10,256
" Bidwell, Pro..... 910
Governor, Anselm J. McLaurin. Term expires Jan'y 1, 1900.
U. S. Representatives, 1896..... 7
Democrats.....7
Post-offices, 1895... .. 1,586
Railroads (miles). 1895. 2,487
Manufactures.....$18,705,894
Operatives..... . 15,817
Yearly wages..... $4,913,863
Farm Products, 1895
Corn.. 35,977,169 bu..$13,311 553
Wheat, 37,184 bu., $22,682
Oats.. 5,210,172 bu., $2,188,272
Potatoes, 363,196 bu., $232,445
Hay .... 148,432 t's, $1,439,790
Cotton, 1,200,000 bales
School children enrolled, 1893-4.... 345,584
Average attendance... 206,247
Military Strength.
Organized..... 1,760
Available..... 233,480
Newspapers, 1895 177
Annual average precipitation.. . ..... 52 86

POPULATION OF CHIEF CITIES.

Estimated. 1895.		1890.
Vicksburg	15,000	13,373
Meridian	13,000	10,624
Natches	12,000	10,101

MISSOURI. PAGE 443.

Counties..... 115
Population, 1896 (estimated) 3,200,000
Total vote cast, 1892... 540,344
For Cleveland, D.... 268,039
" Harrison, R. ... 226,824
" Weaver, Pop ... 41,183
" Bidwell, Pro..... 4,298
Total vote cast, 1894... 503,322
For Robinson, R., (Judge Sup. Ct.) 229,641
" Black, D.. 226,547
" Jones, Pop... .. 42,463
Governor, William J. Stone. Term expires Jan'y 1, 1897.
U S. Representatives, 1896 15
Republicans.....10
Democrats. 5
Post offices, 1895..... 2,725
Railroads (miles) 1895. 6,517
Manufactures $324,561,993
Operatives..... 143,139
Yearly wages $76,417,364
Farm Products, 1895.
Corn.. 238,072,248 bu.,$47,614,450
Wheat, 18,499,968 bu., $9,434,984
Oats.. 30,547,699 bu., $5 498,586
Rye... 246,233 bu., $96,031
Barley, 14,382 bu., $6,903
Buckwh., 28,254 bu., $16,387
Potat's, 10,765,276 bu., $2,691,319
Hay... 2,725,785 t's.$18,535,338
School children enrolled, 1893-4..... 657,505
Average attendance... 469,846
Military Strength.
Organized.. 2,096
Available..... 380,000
Newspapers, 1895..... 937
Annual average precipitation 32.94

POPULATION OF CHIEF CITIES.

Estimated, 1895.		1890.
St. Louis	600,000	451,770
Kansas City	150,000	132,716
St. Joseph.	60,000	52,324
Springfield	30,000	21,850

MONTANA. PAGE 509.

Counties..... 16
Population, 1896 (estimated)..... 185,000
Total vote cast, 1892... 44,285
For Harrison, R..... 18,851
" Cleveland, D.... 17,581
" Weaver, Pop ... 7,334
" Bidwell, Pro..... 519
Governor, John E. Rickards. Term expires Jan'y 4, 1897.
U. S. Representatives, 1896, 1
Republicans 1
Post-offices, 1895..... 397
Railroads (miles), 1895, 2,824
Manufactures.. .. . $5,507,573
Operatives..... 2,696
Yearly wages.. ....$1,948,213
Farm Products, 1895.
Corn.. 33,275 bu., $24,956
Wheat, 1,065,223 bu., $777,613
Oats.. 2,446,071 bu., $1,076,271
Barley, 142,525 bu., $84,090
Potatoes, 288,426 bu., $138 444
Hay. . 292,657 t's, $3,336,290
School children enrolled, 1893-4 25,720
Average attendance... 16,423
Military Strength.
Organized.. 517
Available..... 25,000
Newspapers, 1895..... 91
Annual average precipitation 13.84

POPULATION OF CHIEF CITIES.

Estimated, 1895.		1890
Butte City	17,500	10,834
Helena.	16,000	13,834
Great Falls	7,000	3,979
Anaconda	6,500	3,975
Missoula	5,000	3,426
Livingston	4,000	2,850
Bozeman	3,500	2,143

NEBRASKA. PAGE 519.

Counties..... 91
Population, 1896 (estimated)..... .. 1,158,000
Total vote cast, 1892... 199,314
For Harrison, R. 87,213
" Weaver, Pop.. . 82 256
" Cleveland, D .. 24,943
" Bidwell, Pro 4,902
Total vote cast, 1894... 204,016
For Holcomb, D..... 97,815
" Majors, R..... 94,613
" Sturdevant, S. D. 6,985
Governor, Silas A. Holcomb. Term expires Jan'y 4, 1897.
U. S. Representatives.. 6
Republicans.....5
Populist 1
Post-offices, 1895..... 1,089
Railroads (miles), 1895, 5,541
Manufactures.....$93,037,794
Operatives 23,876
Yearly wages.....$12,984,571

Farm Products, 1895.
Corn..125,685,069 bu., $22,623,312
Wheat, 14,787,024 bu., $5,914,810
Oats... 39,911,690 bu., $5,587,637
Rye.... 598,994 bu., $179,698
Barley, 1,393,048 bu., $334,332
Buckwh., 56,481 bu., $36,713
Potatoes, 7,994,373 bu., $2,398,312
Hay... 1,811,454 t's. $6,448,776
School children enrolled, 273,052
Average attendance... 171,198
Military Strength.
Organized..... 1,248
Available..... 132,000
Newspapers, 1895..... 614
Annual average precipitation..... ..... 13.06

POPULATION OF CHIEF CITIES.

Estimated, 1895.	1890.
Omaha..... .. 160,000	140,452
Lincoln..... 75,000	55,154
Beatrice..... 20,000	13,836
Hastings ... 20,000	13,584
Nebraska City... 15,000	11,494

NEVADA. PAGE 531.

Counties..... 14
Population, 1896 (estimated)..... 60,000
Total vote cast, 1892... 10 878
For Weaver, Pop.... 7,264
" Harrison, R..... 2,811
" Cleveland, D ... 714
" Bidwell, Pro..... 89
Total vote cast, 1894... 10,473
For Cleveland, D.... 3 861
" Jones, Silver ... 5,523
" Peckham, Pop... 719
Scattering 678
Governor, John E. Jones.
Term expires Jan'y 2, 1899.
U. S. Representatives, 1896, 1
Populist.....1
Post-offices, 1895..... 168
Railroads (miles), 1895, 922
Manufactures.....$1,105,063
Operatives 620
Yearly wages $445,503
Farm Products, 1895.
Wheat, 122,627 bu., $60,087
Barley, 862,578 bu., $131,289
Potatoes, 213,000 bu., $80,940
Hay... 466,965 t's. $3,152,014
School children enrolled, 1893-4..... 6,827
Average attendance... 5,047
Military Strength.
Organized..... 549
Available..... 6,248
Newspapers, 1895..... 29
Annual average precipitation..... ..... 11.73

POPULATION OF CHIEF CITIES.

Estimated, 1895.	1890.
Virginia City.....8,000	8,511
Carson City.....4.000	3,950

NEW HAMPSHIRE. P. 537.

Counties..... 10
Population, 1896 (estimated) 400,000
Total vote cast, 1892. . 89,327
For Harrison. R 45,658
" Cleveland, D.... 42,081
For Bidwell, Pro..... 1,296
" Weaver, Pop.... 292
Total vote cast, 1894... 83,032
For Busiel, R..... 46,491
" Kent. D..... 33 959
" Epps, Pop..... 832
" Knowles, Pro.... 1,750
Governor Charles A. Busiel.
Term expires Jan'y 6, 1897.
U. S. Representatives, 1896, 2
Republicans.....2
Post-offices, 1895..... 559
Railroads (miles), 1895, 1,170
Manufactures.....$85,770,549
Operatives 63,361
Yearly wages $24,248,054
Farm Products, 1895.
Corn.. 1,079,531 bu., $550,561
Wheat, 48,134 bu., $36,582
Oats.. 1,094,122 bu., $382,943
Rye .. 16,208 bu., $12,318
Barley, 136,576 bu., $76,483
Buckwh., 95,919 bu., $45,082
Potat's, 3,134,930 bu., $1,003,178
Hay.. 590,527 t's, $7,381,588
School children enrolled, 1893-4..... 62,437
Average attendance, 42,030
Military Strength.
Organized..... 1,337
Available 55,000
Newspapers, 1895..... 114
Annual average precipitation..... 30.42

POPULATION OF CHIEF CITIES.

Estimated, 1895.	1890.
Manchester.....55,000	44,126
Nashua 22,000	19,311
Concord.. 19,000	17,004
Dover.. 14,000	12,790
Portsmouth.....10,000	9,827

NEW JERSEY. PAGE 549.

Counties..... 21
Population, 1896 (estimated).....,.... ... 1,672.942
Total vote cast, 1892... 337,547
For Cleveland, D.... 171,042
" Harrison. R..... 156,068
" Bidwell, Pro..... 8,131
" Wing..... 1,337
" Weaver, Pop ... 969
Total vote cast, 1895... 311,618
For Griggs, R 162,900
" McGill, D. 136,000
" Wilbur, Pro. .. 6,661
" Klein, Soc. Lab.. 4,147
Scattering. 1,901
Governor, John W. Griggs.
Term expires Jan'y 16, 1899.
U. S. Representatives, 1896, 8
Republicans.....8
Post-offices, 1895.. 902
Railroads (miles), 1895, 2,205
Manufactures.....$354,373,571
Operatives. 187,398
Yearly Wages..... $96,778,736
Farm Products, 1895.
Corn.....9,233,004 bu., $3,877,862
Wheat...1,340,924 bu., $952,056
Oats.....3,818,416 bu., $1,107,341
Rye..... 988,448 bu., $504,108
Buckwh., 252,656 bu., $126,328
Potatoes, 4,600,548 bu., $1,564,186
Hay ..... 599,486 t's, $7,577,503
School children enrolled, 249,588
Average attendance... 151,273
Military Strength.
Organized 3,970
Available 284,887
Newspapers, 1895..... 370
Annual average precipitation..... 40.26

POPULATION OF CHIEF CITIES.

State Census, 1895.	1890.
Newark.....215,806	181,830
Jersey City.....182,713	163,003
Paterson..... 97,344	78,347
Camden..... 63,467	58,313
Trenton 62,518	57,458
Hoboken 54,083	43,648
Elizabeth..... 43,834	37,764
Orange..... 22,792	18,844
New Brunswick. 19,910	18,003
Bayonne..... 19,856	19,033

NEW MEXICO. PAGE 567.

Counties..... 14
Population 1896 (estimated)..... 185,000
Total vote cast, 1892... 31,019
For Joseph, D.. 15,799
" Catron, R..... 15,220
Total vote cast, 1894... 35,301
For Catron, R., U. S. Delegate 18,113
" Joseph, D..... 15,351
" Mills, Pop..... 1,835
Governor, William T. Thornton.
Term expires April 21, 1897.
Delegate in Congress,.. 1
Republican.....1
Post-offices, 1895..... 306
Railroads (miles), 1895, 1,510
Manufactures $1,516,195
Operatives..... 944
Yearly wages..... .. $532,727
Farm Products, 1895.
Corn.. 733,203 bu., $410,594
Wheat, 809,248 bu., $590,751
Oats.. 393,773 bu., $177,198
Barley, 51,856 bu., $35,262
Potatoes, 59,360 bu., $37,397
Hay.. 120,637 t's, $965,096
School children enrolled, 1893-4..... 21,471
Average attendance, .. 16,987
Military Strength.
Organized..... 470
Available..... 25,000
Newspapers, 1895..... 52
Annual average precipitation 12.72

POPULATION OF CHIEF CITIES.

Estimated, 1895.	1890.
Santa Fé. 6,000	6,185
Albuquerque 7,000	5,518
Las Vegas.....6,000	4,697

NEW YORK. PAGE 575.

Counties..... 60
Population, 1896 (estimated) 6,690,842
Total vote cast. 1892... 1,336,942
For Cleveland, D.... 654,908
" Harrison, R. .. . 609,459
" Bidwell, Pro..... 38,190
" Wing.. 17,956
" Weaver, Pop.... 16,429

Total vote cast, 1895... 1,169,917
For Palmer, R. (Sec'y State)..... 601,205
For King, D..... 511,060
" Smith, Pro..... 25,239
" Pillenz, Soc. Lab. 21,497
" Wakeman, Pop.. 6,916
Governor, Levi P. Morton.
Term expires Dec. 31, 1896.
U. S. Representatives.. 35
Republicans.....29
Democrats..... 6
Post-offices, 1895..... 3,622
Railroads (miles), 1895, 8,148
Manufactures.....$1,711,577,671
Operatives..... 850,084
Yearly wages. $466,846,642
Farm Products, 1895.
Corn...18,014,170 bu., $8,106,377
Wheat. 7,301,069 bu., $4,964,727
Oats...45,666,354 bu., $12,786,579
Rye.... 4,328,144 bu., $2,077,509
Barley. 5,473,215 bu., $4,433,304
Buckw., 5,982,370 bu., $2,632,243
Potat's, 51,749,350 bu., $11,902,351
Hay.... 3,557,524 t's $48,738,079
School children enrolled..... 1,124,998
Average attendance, 721,063
Military Strength.
Organized..... 12,846
Available..... 750,000
Newspapers, 1895..... .. 1,993
Annual average precipitation..... 37.95

POPULATION OF CHIEF CITIES.

	Estimated, 1895.	1890.
N. Y. City	2,000,000	1,513,301
Brooklyn	1,150,000	806,343
Buffalo	350,000	255,664
Rochester	160,000	133,896
Syracuse.	115,000	88,143
Albany	100,000	94,923
Troy	64,000	60,956
Utica	50,000	44,007
Binghamton	45,000	35,005
Long Island City	45,000	30,506
Elmira	40,000	30,893
Yonkers	38,000	32,003
Schenectady	27,500	19,902
Cohoes	25 000	22,509
Poughkeepsie.	25,000	22,206

N. CAROLINA. PAGE 645.

Counties..... 96
Population, 1896 (estimated)..... 1,720,000
Total vote cast, 1892.. 281,025
For Cleveland, D... 133,098
" Harrison, R.... 100,565
" Weaver, Pop... 44,732
" Bidwell, Pro.... 2,630
Total vote cast, 1894.. 275,937
For Faircloth, R.-P. (Chief Justice) 148,344
" Shepherd, D... 127,593
Governor, Elias Carr.
Term expires Jan'y 1, 1897.
U. S. Representatives, 9
Republicans.....4
Democrats.....3
Populists.....2
Post-offices, 1895..... 2,876
Railroads (miles), 1895 3,371
Manufactures.....$40,375,450
Operatives..... 36,214
Yearly Wages..... $7,830,536
Farm Products, 1895.
Corn....36,378,412 bu., $13,828,797
Wheat.. 4,748,552 bu., $3,418,957
Oats.... 7,652,333 bu., $2,907,887
Rye.... 437,599 bu., $280,063
Buckwh. 18,624 bu., $8,195
Potat's.. 1,461,026 bu., $803,564
Hay .... 273,540 t'ns, $2,773,696
Cotton.. 465,000 bales.
School children enrolled, 1893-4..... 370,890
Average attendance.. 230,301
Military Strength.
Organized..... 1,659
Available..... 240,000
Newspapers, 1895..... 200
Annual average precipitation..... 51.07

POPULATION OF CHIEF CITIES.

	Estimated, 1895.	1890.
Wilmington	22,500	20,056
Raleigh	14,000	12,678
Charlotte	13,000	11,557
Asheville	12,000	10,235
Winston	10,000	8,018

N. DAKOTA. PAGE 655.

Counties..... 54
Population, 1896 (estimated)..... 225,000
Total vote cast, 1892 36,092
For Weaver, Pop... 17,676
" Harrison, R..... 17,519
" Bidwell, Pro.... 897
Total vote cast, 1894.. 41,265
For Allin, R..... 23,723
" Kinter, D..... 8,188
" Wallace, Pop... 9,354
Governor, Roger Allin.
Term expires, Jan. 5, 1897.
U. S. Representative 1896. 1
Republican.....1
Post-offices, 1895..... 530
Railroads (miles), 1895 2,528
Manufactures..... $5,028,107
Operatives..... 1,847
Yearly Wages..... $1,002,881
Farm Products, 1895.
Corn.... 658,979 bu., $158,155
Wheat.. 61,057,710 bu., $23,201,930
Oats.... 19,067,914 bu., $3,050,866
Rye.... 45,476 bu., $12,279
Barley. 8,839,286 bu., $1,767,857
Buckwh't, 1530 bu., $1,086
Potat's. 5,192,448 bu., $882,716
Hay.... 585,377 t's, $2,037,112
School children enrolled..... 47,361
Average attendance 32,305
Military Strength.
Organized..... 545
Available..... 50,000
Newspapers, 1895..... 139
Annual average precipitation..... 16.04

POPULATION OF CHIEF CITIES.

	Estimated, 1895.	1890.
Fargo	7,500	5,664
Grand Forks	7,000	4,979
Jamestown	3,500	2,296
Bismarck	3,000	2,186

OHIO. PAGE 661.

Counties..... 88
Population, 1896 (estimated)..... 4,000,000
Total vote cast, 1892... 850,127
For Harrison, R..... 405,187
" Cleveland, D.... 404,113
" Bidwell, Pro..... 26,007
" Weaver, Pop.... 14,818
Total vote cast, 1895... 837,466
For Bushnell, R..... 427,141
" Campbell, D..... 334,519
" Coxey, Pop..... 52,675
" Ellis, Pro..... 21,264
Governor, Asa Bushnell.
Term expires Jan'y 13, 1898.
U. S. Representatives. 1896, 21
Republicans.....19
Democrats..... 2
Post-offices, 1895..... 3,301
Railroads (miles) 1895, 8,574
Manufactures.....$641,688,064
Operatives..... 331,548
Yearly wages.....$158,768,883
Farm Products, 1895.
Corn...92,783,186 bu., $25,051,460
Wheat.32,215,579 bu., $19,329,347
Oats...31,404,493 bu., $6,908,988
Rye.... 826,254 bu., $371,814
Barley. 824,681 bu., $338,119
Buckwh 182,193 bu., $100,206
Potat's.13,107,024 bu., $4,194,248
Hay... 1,046,064 t's. $13,347,777
School children enrolled, 809,780
Average attendance..... 583,599
Military Strength.
Organized..... 6,057
Available..... 645,000
Newspapers, 1895..... 1,146
Annual average precipitation..... 26.65

POPULATION OF CHIEF CITIES.

	Estimated, 1895.	1890.
Cincinnati	365,000	296,908
Cleveland	345,000	261,353
Toledo	125,000	81,434
Columbus	110,000	88,150
Dayton	85,000	61,220
Springfield	40,000	31,895
Youngstown	40,000	33,220
Canton	35,000	26,189
Zanesville	23,000	21,009
Findlay	21,000	18,553
Sandusky	20,000	18,471
Lima	20,000	15,981
Hamilton	20,000	17,565

OKLAHOMA TER. PAGE 693.

Counties..... 13
Population, 1896 (estimated)..... 275,000
Total vote cast, 1892... 21,216
Total vote, 1894. 48,495
For Flynn, R. (Del. to Congress)..... 20,449
For Wisby, D. 12,058
" Beaumont, Pop. 15,988
Governor, Wm. C. Renfrew.
Term expires May 6, 1897.
Delegate to Congress, 1896. 1
Republican 1
Post-offices, 1895..... 468
Railroads (miles), 1895 458
Manufactures..... $180,445

Operatives..... 195
Yearly wages..... $71,918
Farm Products. 1895.
Wheat...2,592,656 bu., $1,244,475
School children enrolled..... 31,048
Average attendance. 16,900
Military Strength.
Organized..... 130
Available..... 10,000
Newspapers, 1895..... 111
Annual average precipitation..... 25.43

POPULATION OF CHIEF CITIES.

Estimated, 1895.	1890.
Guthrie 8,000	5,333
Oklahoma City...7,000	4,151
Kingfisher.....2,000	1,134

OREGON. PAGE 697.

Counties..... 31
Population, 1896 (estimated)..... 400,000
Total vote cast, 1892.. 87,339
For Weaver, Pop ... 35,813
" Harrison, R 35,002
" Cleveland, D.... 14,243
" Bidwell, Pro.... 2,281
Total vote cast, 1894.. 87,265
For Lord, R..... 41,034
" Galliway, D..... 17,498
" Pierce, Pop 26,033
Governor, Wm. P. Lord.
Term expires Jan. 8. 1899.
U. S. Representatives, 1896. 2
Republicans 2
Post offices, 1895 798
Railroads (miles), 1895 1,514
Manufactures $41,432,174
Operatives..... 18,798
Yearly wages $11,535,229
Farm Products, 1895.
Corn..... 353,628 bu., $194,495
Wheat...11,862,720 bu.,$5,575,478
Oats .... 7,240,982 bu.,$1,955,065
Rye..... 68,454 bu., $36,965
Barley... 768,682 bu., $307,473
Buckwh., 3,875 bu., $1,938
Potatoes. 1,124,544 bu., $438,572
Hay ..... 1,166,165 t's,$7,136,930
School children enrolled 77,941
Average attendance 58,984
Military Strength.
Organized..... 1,565
Available 46,365
Newspapers. 1895..... 189
Annual average precipitation 47.57

POPULATION OF CHIEF CITIES.

Estimated, 1895.	1890.
Portland 81,000	46,385
E. Portland.....15,000	10,532
Salem 13,000	10,422

PENNSYLVANIA. PAGE 709.

Counties..... 67
Population, 1896 (estimated) 5,760,128
Total vote cast, 1892... 1,003,810
For Harrison, R..... 576,011
" Cleveland, D 452,264
" Bidwell, Pro..... 25,123
" Weaver, Pop 8,714
" Wing..... 898
Total vote cast, 1894... 951,132
For Hastings, R..... 574,801
" Singerly, D..... 333,404
" Hawley, Pro 23,443
" Ailman, Pop..... 19,484
Governor, D. H. Hastings.
Term expires Jan'y 17, 1899.
U. S. Representatives, 1896, 29
Republicans.....27
Democrats..... 2
Post-offices, 1895 4,980
Railroads (miles) 1895. 9,511
Manufactures $1,331,794,901
Operatives..... 620,562
Yearly wages..... $355,591,003
Farm Products, 1895.
Corn...43,512,681 bu., $16,969,946
Wheat.20,456,429 bu., $13,296,679
Oats ...36,536,311 bu., $9,864,804
Rye.... 4,676,923 bu., $2,338,462
Barley. 258,843 bu., $106,126
Buckwh 4,568,960 bu., $2,010,342
Potat's.23,193,228 bu., $6,494,104
Hay ... 2,872,047 t's. $35,326,178
School children enrolled..... 1,062,999
Average attendance 759,560
Military Strength.
Organized..... 8,932
Available..... 806,230
Newspapers, 1895..... 1,433
Annual average precipitation..... 36.05

POPULATION OF CHIEF CITIES.

Estimated, 1895.	1890.
Philadelphia..1,350,000	1,046,964
Pittsburg..... 275,000	238,617
Allegheny 120,000	105,287
Scranton 110,000	75,215
Reading 90,000	58,661
Erie 55,000	40,634
Harrisburg... 55,000	39,385
Wilkesbarre.. 51,500	37,718
Altoona..... 42,000	30,337
Lancaster 36,000	32,011
Williamsport. 30,000	27,132

RHODE ISLAND. PAGE 763.

Counties 5
Population, 1896 (estimated)..... 384,758
Total vote cast, 1892.. 53,193
For Harrison, R..... 26,975
" Cleveland, D.... 24,336
" Bidwell, Pro.... 1,654
" Weaver, Pop ... 228
Total vote cast, 1895.. 44,111
For Lippitt, R..... 25,098
" Littlefield, D. .. 14,289
" Quimby, Pro ... 2,624
" Boomer, S. L... 1,730
Governor, Chas. W. Lippitt.
Term expires May 28, 1890.
U. S. Representatives. 2
Republicans 2
Post-offices, 1895..... 144
Railroads (miles), 1895 225
Manufactures.....$142,500,625
Operatives..... 85,976
Yearly wages $37,927,921
Farm Products, 1895
Corn..... 284,805 bu., $159,491
Oats..... 121,986 bu., $47,575
Barley... 8,954 bu., $6,716
Potatoes .1,010,712 bu., $454,820
Hay..... 74,817 t's, $1,290,593
School children enrolled..... 55,671
Average attendance.. 38,587
Military Strength.
Organized..... 1,372
Available 73,945
Newspapers, 1895..... 70
Annual average precipitation 38.06

POPULATION OF CHIEF CITIES.

Estimated, 1895.	1890.
Providence.....160,000	132,146
Pawtucket..... 33,000	27,633
Woonsocket.... 25,000	20,830
Lincoln..... 23,000	20,355
Newport 22,000	19,457
Warwick..... 20,000	17,761

S. CAROLINA. PAGE 781.

Counties..... 35
Population, 1896 (estimated)..... 1,375,000
Total vote cast, 1892.. 70,492
For Cleveland, D.... 54,698
" Harrison, R 13,384
" Weaver, Pop ... 2,410
Total vote cast, 1894.. 56,785
For Evans, D 39,507
" Pope, Ind. Dem. 17,278
Governor, John Gary Evans.
Term expires Dec. 10, 1896.
U. S. Representatives. 7
Democrats.....7
Post-offices, 1893..... 1,265
Railroads (miles), 1895 2,617
Manufactures.....$31,926,681
Operatives..... 24,662
Yearly wages $6,590,983
Farm Products, 1895.
Corn ....19,860,908 bu., $9,136,018
Wheat .. 858,624 bu., 755,589
Oats .... 4,390,322 bu., $2,151,258
Rye..... 41,041 bu., $47,197
Potatoes, 401,400 bu., $293,022
Hay .... 144,986 t's, $1,104,793
Cotton .. 750,000 bls.
School children enrolled..... 226,766
Average attendance .. 165,115
Military Strength.
Organized..... 4,674
Available 181,000
Newspapers, 1895..... 119
Annual average precipitation 48.24

POPULATION OF CHIEF CITIES.

Estimated, 1895.	1890.
Charleston.....62,500	54,955
Columbia.....18,000	15,353
Greenville..... 9,500	8,607

SOUTH DAKOTA. PAGE 789.

Counties..... 78
Population, 1896 (estimated) 332,000
Total vote cast, 1892..... 70,114
For Harrison, R..... 34,825
" Weaver, Pop..... 26,382
" Cleveland, D..... 8,907
Total vote cast, 1894..... 76,736
For Sheldon, R..... 40,401
" Howe, Pop..... 26,568
" Ward, D 8,756
" Alexander, Pro... 1,011

Governor, Charles H. Sheldon.
Term expires Jan'y 1, 1897.
U. S. Representatives, 1896, 2
Republicans.....2
Post offices, 1895 665
Railroads (miles), 1895.. 2,797
Manufactures $5,682,748
Operatives..... 2,422
Yearly wages.....$1,098,418
Farm Products, 1895.
Corn...12,423,442 bu., $2,857,392
Wheat.29,261,088 bu., $11,119,213
Oats...39,911,696 bu., $5,587,637
Rye.... 37,968 bu., $9,492
Barley, 2,543,678 bu., $483,299
Buckwh., 16,150 bu., $9,690
Potat's. 4,037,154 bu., $1,049,660
Hay.... 1,547,768 t's. $5,092,157
School children enrolled, 1896..... 88,026
Average attendance..... 54,400
Military Strength.
Organized..... 799
Available..... 35,000
Newspapers, 1895..... 264
Annual average precipitation 12.52

POPULATION OF CHIEF CITIES.

	Estimated, 1895.	1890.
Sioux Falls.....	13,000	10,177
Yankton	5,000	3,670
Pierre.....	4,000	3,085
Aberdeen.....	3,500	3,182

TENNESSEE. PAGE 795.

Counties..... 96
Population, 1896 (estimated)..... 1,800,000
Total vote cast, 1892.. 264,928
For Cleveland, D. .. 136,477
" Harrison, R 99,973
" Weaver, Pop.... 23,622
" Bidwell, Pro.... 4,856
Total vote cast, 1894 .. 235,093
For Evans, R..... 105,104
" Turney, D..... 104,356
" Mims, Pop..... 23,092
Governor, Peter Turney.
Term expires Jan. 15, 1897.
U. S. Representatives, 1896, 10
Republicans.....4
Democrats.....6
Post-offices, 1895..... 2,636
Railroads (miles) 1895 3,124
Manufactures $72,355,286
Operatives..... 42,759
Yearly wages $16,899,351
Farm Products, 1895.
Corn....83,133,025 bu.,$22,445,917
Wheat.. 5,766,728 bu., $3,575,371
Oats....10,234,958 bu., $2,763,439
Rye .... 129,326 bu., $80,182
Barley.. 57,542 bu., $28,771
Buckwh. 13,120 bu., $7,085
Potatoes, 2,443,328 bu., $977,331
Hay .... 550,876 t's, $5,965,987
Cotton.. 400,000 bls.
School children enrolled..... 463,461
Average attendance .. 330,978
Military Strength.
Organized..... 3,369
Available 169,000
Newspapers, 1895..... 275
Annual average precipitation..... 42.78

POPULATION OF CHIEF CITIES.

	Estimated, 1895.	1890.
Memphis.....	105,000	64,495
Nashville.....	87,000	76,168
Chattanooga....	45,000	29,100
Knoxville.....	28,000	22,535

TEXAS. PAGE 811.

Counties..... 225
Population, 1896 (estimated) 2,888,263
Total vote cast, 1892... 418,426
For Cleveland, D 239,148
" Weaver, Pop.... 99,638
" Harrison, R..... 77,475
" Bidwell, Pro..... 2,165
Total vote cast, 1894... 437,806
For Culberson, D.... 241,882
" Makimson, R.... 55,402
" Schmidt, Ind. R. 5,026
" Nugent, Pop.... 159,224
Governor, Charles A. Culberson.
Term expires Jan'y 12, 1897.
U. S. Representatives, 1896, 13
Republicans..... 1
Democrats.....12
Post-offices, 1895..... 2,730
Railroads (miles), 1895 9,230
Manufactures.....$70,433,551
Operatives 39,475
Yearly wages $18,586,338
Farm Products, 1895.
Corn...10,790,565 bu., $33,450,725
Wheat.. 2,081,640 bu., $1,373,882
Oats...14,569,178 bu., $3,787,000
Rye.... 24,129 bu., $18,097
Barley, 53,654 bu., $28,973
Potat's. 1,276,082 bu., $995,344
Hay.... 676,677 t's. $4,351,033
Cotton, 3,114,000 bales.
School children enrolled, 1895 598,608
Average attendance..... 418,069
Military Strength.
Organized..... 3,000
Available..... 300,000
Newspapers. 1895..... 659
Annual average precipitation 25.85

POPULATION OF CHIEF CITIES.

	Estimated, 1895.	1890.
Dallas	60,000	38,067
San Antonio.....	45,000	37,673
Galveston.....	32,000	29,084
Houston.....	31,000	27,557
Ft. Worth.....	27,000	23,076

UTAH. PAGE 831.

Population, 1896 (estimated)..... 254,743
Total vote cast, 1892.. 84,577
Total vote cast, 1895.. 41,430
For Wells, R..... 20,833
" Cane, D..... 18,519
Governor, Heber M. Wells.
Term expires Jan. 1, 1901.
U. S. Representatives, 1896, 1
Republican.....1
Post-offices, 1895..... 290
Railroads (miles) 1895. 1,394
Manufactures.....$8,911,047
Operatives..... 4,980
Yearly wages.....$2,715,805
Farm Products, 1895.
Corn..... 181,035 bu., $88,707
Wheat...2,443,536 bu., $1,075,151
Oats..... 926,357 bu., $277,907
Rye..... 78,269 bu., $27,394
Barley... 190,980 bu., $74,482
Potatoes.1,064,852 bu., $362,050
Hay ..... 459,712 t's., $2,422,682
School children enrolled 57,908
Average attendance .. 39,821
Military Strength.
Organized..... 1,080
Available 25,000
Newspapers (1895).... 65
Annual average precipitation..... 14.32

POPULATION OF CHIEF CITIES.

	Estimated, 1895.	1890.
Salt Lake City..52,000		44,843
Ogden.....19,000		14,889

VERMONT. PAGE 839.

Counties..... 14
Population, 1896 (estimated)..... 340,000
Total vote cast, 1892..... 55,784
For Harrison, R..... 37,992
" Cleveland, D..... 16,325
" Bidwell, Pro 1,424
" Weaver, Pop..... 43
Total vote cast, 1894..... 58,015
For Woodbury, R..... 42,663
" Smith, D..... 14,142
" McGinnis..... 740
Governor, U. A. Woodbury.
Term expires Oct. 1, 1896.
U. S. Representatives, 1896, 2
Republicans.....2
Post-offices, 1895..... 563
Railroads (miles), 1895.. 975
Manufactures..... $38,340,066
Operatives..... 24,894
Yearly wages $10,096,549
Farm Products, 1895.
Corn....2,153,460 bu., $1,033,661
Wheat... 185,078 bu., $127,704
Oats.....5,100,598 bu., $1,683,197
Rye..... 51,808 bu., $29,531
Barley... 619,778 bu., $291,296
Buckwh., 409,515 bu., $151,521
Potatoes, 5,034,152 bu., $1,334,854
Hay..... 893,959 t's.,$10,950,998
School children enrolled.. 65,548
Average attendance..... 40,120
Military Strength.
Organized..... 707
Available..... 44,164
Newspapers, 1895..... 80
Annual average precipitation..... 27.02

POPULATION OF CHIEF CITIES.

	Estimated, 1895.	1890.
Burlington.....	17,000	14,590
Rutland.....	12,000	11,760

VIRGINIA. PAGE 849.

Counties..... 101
Population, 1896 (estimated) 1,750,000
Total vote cast, 1892.. 292,242
For Cleveland, D.... 163,977
" Harrison, R..... 113,255
" Weaver, Pop ... 12,274

For Bidwell, Pro.... 2,736
Total vote cast, 1893.. 216,154
For O'Ferrall, D.... 127,940
" Cocke, Pop..... 81,239
" Miller, Pro..... 6,962
Governor, Chas. T. O'Ferrall.
Term expires Jan. 1, 1898.
U. S. Representatives, 1896, 10
Republican 1
Democrats.....9
Post-offices, 1895..... 3,188
Railroads (miles), 1895. 3,575
Manufactures $88,363,824
Operatives 59,591
Yearly wages $19,644,850
Farm Products, 1895.
Corn....32,607,158 bu.,$12,064,648
Wheat . 6,505,583 bu., $4,228,629
Oats.... 8,125,061 bu., $2,437,518
Rye..... 496,551 bu., $258,207
Buckw't, 48,066 bu., $25,956
Potatoes,3,031,325 bu., $1,151,904
Hay. .... 774,601 t's, $8,853,689
School children enrolled 352,710
Average attendance 203,874
Military Strength.
Organized..... 3,107
Available 220,000
Newspapers (1895).... 272
Average annual precipitation..... 45.10

POPULATION OF CHIEF CITIES.

Estimated, 1895.		1890.
Richmond.....	100,000	81,388
Norfolk	40,000	34,871
Petersburg.....	24,000	22,680
Lynchburg.....	22,000	19,709
Roanoke	20,000	16,159
Alexandria.....	15,500	14,339
Portsmouth	14,000	13,268

WASHINGTON. PAGE 865.

Counties..... 34
Population, 1896 (estimated)..... 415,000
Total vote cast, 1892..... 87,911
For Harrison, R..... 36,460
" Cleveland, D..... 29,844
" Weaver, Pop..... 19,054
" Bidwell, Pro 2,553
Governor, John H. McGraw.
Term expires Jan'y 11, 1897.
U. S. Representatives, 1896, 2
Republicans.....2
Post-offices, 1895..... 804
Railroads (miles) 1895.. 2,805
Manufactures $41,768,022
Operatives..... 20,366
Yearly wages.....$12,658,614
Farm Products, 1895.
Corn..... 93,263 bu., $37,305
Wheat...7,195,952 bu., $2,950,340
Oats .....3,671,975 bu., $1,028,153
Rye..... 64,481 bu., $48,361
Barley...1,942,211 bu., $738,040
Potatoes, 2,412,757 bu., $675,572
Hay..... 600,273 t's., $4,051,843
School children enrolled, 86,720
Average attendance..... 58,399
Military Strength.
Organized..... 1,530
Available..... 85,000
Newspapers, 1895..... 225
Average annual precipitation 63.53

POPULATION OF CHIEF CITIES.

Estimated, 1895.		1890.
Seattle.....	60,000	42,837
Tacoma.....	50,000	36,006
Spokane	25,000	19,922

WEST VIRGINIA. PAGE 879.

Counties..... 54
Population, 1896 (estimated) 875,000
Total vote cast, 1892.. 170,948
For Cleveland, D... 84,435
" Harrison, R.... 80,252
" Weaver, Pop... 4,116
" Bidwell, Pro... 2,145
Governor, Wm. A. MacCorkle.
Term expires March 4, 1897.
U. S. Representatives, 4
Republicans.....4
Post-offices, 1895..... 1,778
Railroads (miles), 1895 1,976
Manufactures.....$38,702,125
Operatives..... 21,969
Yearly Wages..... $8,330,997
Farm Products, 1895.
Corn....16,662,789 bu., $6,665,116
Wheat.. 4,303,780 bu., $2,969,608
Oats.... 3,539,320 bu., $1,132,582
Rye..... 240,759 bu., $146,863
Buckwh. 288,824 bu., $164,630
Potat'es, 2,297,631 bu., $965,000
Hay .... 337,425 t'ns, $4,295,420
School children enrolled..... 218,815
Average attendance.. 135,318
Military Strength.
Organized..... 838
Available..... 122,475
Newspapers, 1895..... 167
Average annual precipitation..... 35.28

POPULATION OF CHIEF CITIES.

Estimated, 1895.		1890.
Wheeling	37,000	34,522
Huntington.....	13,000	10,108
Parkersburg....	10,000	8,408

WISCONSIN. PAGE 885.

Counties 68
Population, 1896 (estimated)..... 1,937,915
Total vote cast, 1892.. 371,187
For Cleveland, D.... 177,355
" Harrison, R 170,791
" Bidwell, Pro 13,132
" Weaver, Pop ... 9,909
Total vote cast, 1894.. 375,244
For Upham, R..... 196,150
" Peck, D..... 142,250
" Powell, Pop..... 25,604
" Cleghorn, Pro .. 11,240
Governor, Wm. H. Upham.
Term expires Jan. 4, 1897.
U. S. Representatives, 1896, 10
Republicans 10
Post-offices, 1895..... 1,809
Railroad (miles) 1895. 6,031
Manufactures $248,546,164
Operatives..... 132,031
Yearly wages $51,843,708
Farm Products, 1895.
Corn....33,093,497 bu., $9,928,049
Wheat.. 8,616,218 bu., $4,394,271
Oats....63,020,269 bu.,$11,343,648
Rye..... 4,208,411 bu., $1,472,944
Barley ..10,868,483 bu., $3,695,284
Buckw't, 904,362 bu., $416,007
Potat's .19,230,040 bu., $3,269,107
Hay..... 1,370,125 t's,$13,194,313
School children enrolled..... 385,620
Average attendance 253,352
Military Strength.
Organized..... 2,571
Available 308,717
Newspapers, 1895..... 578
Average annual precipitation..... 28.87

POPULATION OF CHIEF CITIES.

Estimated, 1895.		1890.
Milwaukee.....	275,000	204,468
La Crosse.....	35,000	25,090
Oshkosh.....	27,000	22,836
Racine	25,000	21,014
West Superior..	20,000	.....

WYOMING. PAGE 903.

Counties..... 12
Population, 1896 (estimated) 100,000
Total vote cast, 1892... 16,674
For Harrison, R..... 8,454
" Weaver, Pop.... 7,722
" Bidwell, Pro..... 498
Total vote cast, 1894... 19,290
For Richards, R..... 10,149
" Holliday, D..... 6,965
" Tidball, Pop..... 2,176
Governor, Wm. A. Richards.
Term expires Jan. 2, 1899.
U. S. Representatives. 1
Republicans.....1
Post-offices..... 251
Railroads (miles), 1895, 1,177
Manufactures.....$2,367,601
Operatives 1,144
Yearly Wages..... $878,646
Farm Products, 1895.
Corn..... 68,283 bu., $38,921
Wheat.....198,198 bu., $126,847
Oats.....581,175 bu., $226,658
Potatoes...275,800 bu., $154,448
Hay .....254,883 t'ns, $1,656,740
School children enrolled..... 10,810
Average attendance.. 6,598
Military Strength.
Organized 460
Available 8,000
Newspapers, 1895..... 38
Average annual precipitation..... 12.04

POPULATION OF CHIEF CITIES.

Estimated, 1895.		1890.
Cheyenne.....	15,000	11,690
Laramie.....	8,000	6,388

ESTIMATED POPULATION IN 1896—SUMMARIZED.

Name of State.	Pop. in 1896.	Area Square Miles.	Capitals.	Est. Pop.	Chief Cities.	Est. Pop.
Alabama	1,600,000	52,250	Montgomery	25,000	Mobile	48,000
					Birmingham	36,000
Alaska	40,000	577,390	Sitka	1,400	Juneau	1,600
Arizona	77,000	113,020	Phœnix	4,000	Tucson	5,000
Arkansas	1,600,000	53,850	Little Rock	40,000	Little Rock	40,000
California	1,220,000	158,360	Sacramento	32,000	San Francisco	350,000
Colorado	450,000	103,925	Denver	140,000	Denver	140,000
Connecticut	800,000	4,990	Hartford	65,000	New Haven	100,000
Delaware	185,000	2,050	Dover	5,000	Wilmington	67,000
District of Columbia	280,000	70	Washington	280,000	Washington	280,000
Florida	485,000	58,680	Tallahassee	4,000	Key West	23,000
					Jacksonville	30,000
Georgia	1,984,930	59,475	Atlanta	110,000	Atlanta	110,000
Idaho	130,000	84,800	Boisé City	5,000	Boisé City	5,000
Illinois	4,500,000	56,650	Springfield	35,000	Chicago	1,750,000
Indiana	3,135,300	36,350	Indianapolis	150,600	Indianapolis	150,600
Indian Territory		31,400			McAlester	4,000
Iowa	2,000,000	56,025	Des Moines	56,359	Des Moines	56,359
Kansas	1,350,000	82,080	Topeka	31,007	Kansas City	38,316
Kentucky	2,200,000	40,400	Frankfort	10,000	Louisville	200,000
Louisiana	1,225,000	48,720	Baton Rouge	13,000	New Orleans	275,000
Maine	732,000	33,040	Augusta	12,000	Portland	40,000
Maryland	1,138,348	12,210	Annapolis	9,000	Baltimore	500,000
Massachusetts	2,495,343	8,315	Boston	500,000	Boston	500,000
					Worcester	100,000
Michigan	2,297,000	58,915	Lansing	15,000	Detroit	300,000
Minnesota	1,610,000	83,365	St. Paul	140,292	Minneapolis	192,833
Mississippi	1,351,850	46,810	Jackson	8,000	Vicksburg	15,000
Missouri	3,200,000	69,415	Jefferson City	9,000	St. Louis	600,000
					Kansas City	150,000
Montana	185,000	146,080	Helena	16,000	Helena	16,000
Nebraska	1,158,000	77,510	Lincoln	75,000	Omaha	160,000
Nevada	60,000	110,700	Carson City	4,000	Virginia City	8,000
New Hampshire	400,000	9,305	Concord	19,000	Manchester	55,000
New Jersey	1,672,942	7,815	Trenton	62,518	Newark	215,806
					Jersey City	182,713
					Paterson	97,344
New Mexico	185,000	122,580	Santa Fé	6,000	Santa Fé	6,000
New York	6,690,842	49,170	Albany	100,000	New York	2,000,000
					Brooklyn	1,150,000
					Buffalo	350,000
					Rochester	160,000
					Syracuse	115,000
North Carolina	1,720,000	52,250	Raleigh	14,000	Wilmington	22,500
North Dakota	225,000	70,795	Bismarck	3,000	Fargo	7,500
Ohio	4,000,000	41,060	Columbus	110,000	Cincinnati	365,000
					Cleveland	345,000
					Toledo	125,000
					Columbus	110,000
Oklahoma	275,000	39,030	Guthrie	8,000	Oklahoma	7,000
Oregon	400,000	96,030	Salem	13,000	Portland	81,000
Pennsylvania	5,760,128	45,215	Harrisburg	55,000	Philadelphia	1,350,000
					Pittsburg	275,000
					Allegheny	120,000
					Scranton	110,000
Rhode Island	384,758	1,250	Providence	160,000	Providence	160,000
			Newport	22,000		
South Carolina	1,375,000	30,570	Columbia	18,000	Charleston	62,500
South Dakota	332,000	77,650	Pierre	4,000	Sioux Falls	13,000
Tennessee	1,800,000	42,050	Nashville	87,000	Memphis	105,000
Texas	2,838,263	265,780	Austin	17,000	Dallas	60,000
					San Antonio	45,000
Utah	254,743	84,970	Salt Lake City	52,000	Salt Lake City	52,000
Vermont	340,000	9,565	Montpelier	6,000	Burlington	17,000
Virginia	1,750,000	42,450	Richmond	100,000	Richmond	100,000
Washington	415,000	61,180	Olympia	7,000	Seattle	60,000
					Tacoma	50,000
West Virginia	875,000	24,780	Charleston	9,000	Wheeling	37,000
Wisconsin	1,937,915	56,040	Madison	16,000	Milwaukee	275,000
Wyoming	100,000	97,890	Cheyenne	15,000	Cheyenne	15,000

THE OFFICIAL CENSUS OF 1890—SUMMARIZED.

Rank in Pop.	Name of State. (See Map, pp. 4, 5.)	Pop. in 1890.	Area Square Miles.	Capitals.	Pop.	Chief Cities.†	Pop.
17	Alabama, H4	1,513,017	52,250	Montgomery	21,883	Mobile	31,076
						Birmingham	26,178
51	Alaska	31,759	577,390	Sitka	1,190	Juneau	1,253
49	Arizona, C4	59,620	113,020	Phœnix	3,152	Tucson	5,150
24	Arkansas, G4	1,128,179	53,850	Little Rock	25,874	Little Rock	25,874
22	California, A3	1,208,130	158,360	Sacramento	26,386	San Francisco	298,997
31	Colorado, D3	412,198	103,925	Denver	106,713	Denver	106,713
29	Connecticut, M2	746,258	4,990	Hartford	53,230	New Haven	81,298
43	Delaware, L3	168,493	2,050	Dover	3,061	Wilmington	61,431
39	Dist. of Columbia, K3	230,392	70	Washington	230,392	Washington	230,392
32	Florida, J5	391,422	58,680	Tallahassee	2,934	Key West	18,080
						Jacksonville	17,201
12	Georgia, J4	1,837,353	59,475	Atlanta	65,533	Atlanta	65,533
						Savannah	43,189
46	Idaho, B2	84,385	84,800	Boisé City	2,311	Boisé City	2,311
3	Illinois, H2	3,826,351	56,650	Springfield	24,963	Chicago	1,099,850
8	Indiana, H3	2,192,404	36,350	Indianapolis	105,436	Indianapolis	105,436
41	Indian Territory, F3	186,490	31,400	.....	.....	McAlester	a3,025
10	Iowa, G2	1,911,896	56,025	Des Moines	50,093	Des Moines	50,093
19	Kansas, F3	1,427,096	82,080	Topeka	31,007	Kansas City	38,316
11	Kentucky, J3	1,858,635	40,400	Frankfort	7,892	Louisville	161,129
25	Louisiana, G4	1,118,587	48,720	Baton Rouge	10,478	New Orleans	242,039
30	Maine, M1	661,086	33,040	Augusta	10,527	Portland	36,425
27	Maryland, K3	1,042,390	12,210	Annapolis	7,604	Baltimore	434,439
6	Massachusetts, L2	2,238,943	8,315	Boston	448,477	Boston	448,477
9	Michigan, H1	2,093,889	58,915	Lansing	13,102	Detroit	205,876
20	Minnesota, G1	1,301,826	83,365	St. Paul	133,156	Minneapolis	164,738
21	Mississippi, H4	1,289,600	46,810	Jackson	5,920	Vicksburg	13,373
5	Missouri, G3	2,679,184	69,415	Jefferson City	6,742	St. Louis	451,770
						Kansas City	132,716
45	Montana, D1	132,159	146,080	Helena	13,834	Helena	13,834
26	Nebraska, E2	1,058,910	77,510	Lincoln	55,154	Omaha	140,452
50	Nevada, B3	45,761	110,700	Carson City	3,950	Virginia City	8,511
33	New Hampshire, L2	376,530	9,305	Concord	17,004	Manchester	44,126
18	New Jersey, L2	1,444,933	7,815	Trenton	57,458	Newark	181,830
						Jersey City	163,003
44	New Mexico, D4	153,593	122,580	Santa Fé	6,185	Santa Fé	6,185
1	New York, K2	5,997,853	49,170	Albany	94,923	New York	1,515,301
						Brooklyn	806,343
						Buffalo	255,664
						Rochester	133,896
16	North Carolina, K3	1,617,947	52,250	Raleigh	12,678	Wilmington	20,056
42	North Dakota, E1	182,719	70,795	Bismarck	2,186	Fargo	5,664
4	Ohio, J2	3,672,316	41,060	Columbus	88,150	Cincinnati	296,908
						Cleveland	261,353
47	Oklahoma, F3	61,834	39,030	Guthrie	2,788	Oklahoma	4,151
38	Oregon, A2	313,767	96,030	Salem	10,422	Portland	46,385
2	Pennsylvania, K2	5,258,014	45,215	Harrisburg	39,385	Philadelphia	1,046,964
						Pittsburg	238,617
						Allegheny	105,287
35	Rhode Island, M2	345,506	1,250	Providence	132,146	Providence	132,146
				Newport	19,457		
23	South Carolina, J4	1,151,149	30,570	Columbia	15,353	Charleston	54,955
37	South Dakota, E2	328,808	77,650	Pierre	3,235	Sioux Falls	10,177
13	Tennessee, H3	1,767,518	42,050	Nashville	76,168	Nashville	76,168
						Memphis	64,495
7	Texas, F4	2,235,523	265,780	Austin	14,575	Dallas	38,067
						San Antonio	37,673
						Galveston	29,084
40	Utah, C3	207,905	84,970	Salt Lake City	44,843	Salt Lake City	44,843
36	Vermont, L2	332,422	9,565	Montpelier	4,160	Burlington	14,590
15	Virginia, K3	1,655,980	42,450	Richmond	81,388	Richmond	81,388
34	Washington, A2	349,390	61,180	Olympia	4,698	Seattle	42,837
						Tacoma	36,006
28	West Virginia, J3	762,794	24,780	Charleston	6,742	Wheeling	34,522
14	Wisconsin, G1	1,686,880	56,040	Madison	13,426	Milwaukee	204,468
48	Wyoming, D2	60,705	97,890	Cheyenne	11,690	Cheyenne	11,690

Total population, 62,840,499 ; total area, 3,602,270.
Population without Alaska and Indian Territory, 62,622,250. Area without Alaska, 3,024,880.

† Includes the largest city in the State, and *in italics* all other cities which nearly equal it or have over 100,000 population.

East

West